# University of Michigan <br> College of Literature, Science, and the Arts 

## LSA Bulletin, 2016-17

## Requirements \& Programs

This document is an unofficial representation of the information available on the LSA website.
For official and updated information, please view the LSA website: http://Isa.umich.edu/Isa/academics/

LSA Academic Calendar, 2016-17

\left.|  | Fall '16 | Winter '17 |
| :--- | :--- | :--- | :--- | :--- | :--- |$\right)$

# LSA Academic Policies and Procedures 

This document is an unofficial representation of the information available on the LSA website.
For official and updated information, please view the LSA website.

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## Academic Policies and Procedures

The policies and procedures described on the LSA website govern the conduct of academic matters affecting students enrolled in the College. Exceptions to these policies may be granted only upon written petition to the Academic Standards Board. Honors students petition the Honors Academic Board; Residential College students petition the RC Board on Academic Standing (BOAS).

## General College Policies \& Procedures

## Student Records

All LSA students have an academic advising file containing admissions material, test scores, unofficial copies of academic records, memoranda, correspondence, and notes which academic advisors or members of the Academic Standards Board have made about their conversations with a student. Information of a sensitive nature may be removed from the academic advising file at the discretion of a member of the Academic Standards Board or at the request of the student and placed in a confidential Dean's file. Dean's files also are created for those students charged with some form of academic misconduct, and for other serious violations of student conduct policies.

Students have the right to examine most materials in their own academic files. Students who wish to review their advising files may do so by scheduling an appointment with an academic advisor. Access to Dean's files may be obtained by contacting the Office of the Assistant Dean. Students may request duplicate copies of most information in their academic files at cost. They also may add clarifying notes and other materials to their advising files during regular business hours. Requests for deletions and additions of material from an advising file or a Dean's file should be addressed in writing to the Office of the Assistant Dean.

The Family Educational Rights and Privacy Act of 1974 (FERPA) governs both the release of and access to student records in the College and University. Access to individual student LSA advising files is restricted to official college academic advisors, members of the Academic Standards Board, and clerical staff who assist in carrying out official advising or Academic Standards Board functions. Only the Assistant Dean for Undergraduate Education (LSA Student Academic Affairs), and individuals directly involved in a judiciary case have direct access to individual confidential Dean's files. FERPA grants students the right:

- to inspect and review their education records;
- to request amendment of the student's education records that the student believes are inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA; and
- to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College or University in an administrative, supervisory, academic or research, or support staff position; or a student serving on an official committee, such as a judicial committee or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Dean's files are maintained by the Office of the Assistant Dean for Undergraduate Education and Executive Director of the Newnan LSA Academic Advising Center for at least two years after the student has been graduated.

## Academic Load and Normal Degree Progress

In defining a normal academic load, a distinction must be made between what load students are permitted to elect and what is recommended. The College does not require students to be enrolled full time, although this may be a requirement for financial aid or auto or health insurance. To be
considered full-time, an undergraduate must be registered in at least 12 credits in a full term or 6 credits in a half-term. Students may elect up to 18 credits in a full term and 9 credits in a half-term without special approval from an academic advisor. Generally, a program of four or five courses totaling 13 to 17 credits is considered typical, and first-year students are usually advised to elect four courses (14 to 16 credits). Since the considerations for determining academic loads are often complex and personal, the College encourages students to discuss each term's elections with an academic advisor.

## Class Standing

Class standing is determined by the number of credits earned toward a degree:

| First-Year: | fewer than 25 credits |
| :--- | :--- |
| Sophomore: | 25 through 54 credits |
| Junior: | 55 through 84 credits |
| Senior: | 85 credits or more |

## Dual Registration

Students who wish to enroll simultaneously in LSA and another division, school, college, or university, must request permission from the Academic Standards Board in advance of registration. Qualified seniors who are interested in the Concurrent Undergraduate-Graduate Studies (CUGS) Program should read that section.

## Residence Policy

At least 60 of the 120 credits required for a degree must be earned in residence. Residence credit is granted for courses elected on the Ann Arbor campus or at off-campus sites directed by Ann Arbor faculty present on the site.

- At least 30 of the last 60 credits for the degree must be earned in residence.
- No more than 60 credits may be earned through Advanced Placement, credit by examination, correspondence courses, transfer credit from other institutions, and off-campus independent study.
- Cross-campus transfer students may receive credit for a maximum of 90 credits from a previous college or school on the Ann Arbor campus. No more than 60 of these 90 credits may have been completed at other institutions. LSA residency requires that a student earn 30 credits in the College of Literature, Science, and the Arts.


## Dual Enrollment while in High School

The State of Michigan mandated that all public universities, effective January 3, 2013, must award credit for transferable college-level courses taken by high school students. President Coleman signed the following statement:

The University certifies that, by January 3, 2013, it will not consider whether dual enrollment credits earned by an incoming student were utilized towards his or her high school graduation requirements when making a determination as to whether those credits may be used by the student toward completion of a university degree or certificate program.

Starting with incoming students in Spring 2013, under this new policy, LSA will allow transferable dual enrollment credits to count toward LSA requirements and degrees. Admissions will review dual enrollment credit for as transfer credit and they will post accepted courses to a student's UM transcript. Students should work with their LSA academic advisor to determine how transfer credits work toward their degree requirements.

Students suspended from the College for reasons of unsatisfactory academic performance must obtain permission to register from the Academic Standards Board. In these cases, the readmission decision rests entirely with the Academic Standards Board. Such students must make an
appointment with a member of the Academic Standards Board at least eight weeks prior to the desired readmission term to discuss readmission to the College. Petitions requesting reinstatement should be received by the Academic Standards Board at least six weeks prior to the beginning of the term in question.

## Dual Enrollment

## Modified 11/16/15

To take a class or classes at another college or university while also enrolled at U-M in the same term, students must get permission from their College. Honors and Residential College students must follow the procedures established by that Program and Residential College.

Students should send an e-mail to
LSADualEnroll@umich.edu
from their umich account with the following information:

## Full name

UMID
Term of dual enrollment
Name of the Other School
Course(s) they plan to take at the other institution
Rationale for dual enrollment
Students will get a response by e-mail within 5 business days letting them know if their request is approved.

Even if the courses from the other school are transferrable, the transfer credit will not be posted without this approval.

## Cross-Campus Transfer Students

Applications from students enrolled in another school or college of the University of Michigan (Ann Arbor) are considered cross-campus transfer applications. Students enrolled in another UM-Ann Arbor school or college who are interested in transferring to LSA should attend a "Transferring to LSA Information Session." Contact the Newnan LSA Advising Center, 1255 Angell Hall, (734) 764-0332, for times and locations. After attending an information session, the student is eligible to schedule an appointment with an LSA advisor to discuss his/her interest in LSA and to complete a short application which will require the advisor's signature. Then the application is submitted to the Office of Undergraduate Admissions (OUA) in the Student Activities Building. International students on temporary U.S. visa status (F-1 or J-1) must also complete additional admissions documents through The International Center, 603 East Madison, Ann Arbor MI 48109-1370; (734) 764-9310 (phone), (734) 647-2181 (fax); icenter@umich.edu

Students may not make a cross-campus transfer to LSA until they have completed two full terms in their original school or college. The application may be submitted during the second term of enrollment. The GPA of the last term before transfer and the cumulative GPA must both be above 2.0 in order for a student to be eligible to transfer into LSA. Students who wish to make a cross-campus transfer after the freshman year should discuss their plans with an academic advisor; the advisor will assist in selecting an appropriate academic program for the second term of the freshman year. Cross-campus transfer students may receive credit for a maximum of 90 credits from the previous college or school. LSA residency requires that a student earn 30 credits in LSA.

Intra-Unit Transfer: Students who wish to transfer from the College of Literature, Science, and the Arts to the Residential College or vice versa should contact the RC Academic Services Office for information about intra-college transfer procedures. In these cases, the Office of Undergraduate Admissions is not involved.

## Transfer Students

Students with competitive records of scholarship in other colleges and universities or from the UM-Dearborn or UM-Flint campuses who wish to continue their academic work in the College of Literature, Science, and the Arts should read the specific transfer information on the web at
www.admissions.umich.edu/transfers. An official transcript from each institution attended, as well as a final transcript from the high school from which the student was graduated, must be submitted as part of the application process. GED scores are acceptable.

## Transfer Credit

Students who transfer from a two-year college are permitted 60 transfer credits ( 62 if an Associate's degree requiring 62 credits has been completed).
[Please note, in order for LSA to accept community college credits toward the 120 -credit requirement after the student has already completed 60 credits, the student needs to be enrolled in the community college course as of Spring 2014 or later. LSA will not allow students who took the course prior to Spring 2014 and who had >60 credits at the time they took the community college course, to count toward their 120 credits regardless of when they send their transfer transcript to U-M. Because the Curriculum Committee explicitly decided to make the new policy effective this Spring 2014 and NOT make it retroactive, the Academic Standards Board will not entertain petitions for students who took community college credit prior to Spring 2014 and want it to count toward their 120 credit requirement.

As always, community college credit taken prior to Spring 2014 can count toward other LSA general requirements regardless of how many credits the student has completed, including BS and LSA credit, as well as distribution.]
Up to 60 credits may be transferred from the Dearborn and Flint campuses of the University of Michigan. Courses completed at these campuses are defined as out-of-residence credit (effective September 1, 1976), even though they carry Michigan Honor Points.

Even if a course is transferable, credit is not allowed if the final grade earned is "C-" or lower. This includes all transferable credit earned outside the University of Michigan. (All credits and grades from the University of Michigan-Dearborn and -Flint campuses transfer.)

Credit cannot be transferred from another school if that credit is also being counted toward another baccalaureate or graduate or professional degree. The programs described on the LSA website under the heading "Special Joint Degree Programs" are exceptions to this policy.
Students interested in electing out-of-residence credit should consult the Office of Undergraduate Admissions' website,
www.admissions.umich.edu/transfer-credit,
about transfer equivalencies and an academic advisor about the appropriateness of the intended elections. Tables of transfer equivalencies are available on the College website at:
www.lsa.umich.edu/transfer
Students who wish to take a course not listed on the equivalency tables may have that course evaluated by using a Transfer Credit Equivalency (TCE) form (formerly the Out-of-Residence form). This form can be completed online at:
www.admissions.umich.edu/current-student-transfer-credit-preevaluation.

If credit elected out-of-residence is to be included in a major, approval should be obtained in advance from a department advisor.
The language requirement cannot be met by out-of-residence credit that is elected after the student has begun degree enrollment in LSA unless the appropriate language department has approved that plan in advance.
Seniors planning to elect the final portion of the senior year out-ofresidence should contact the LSA Academic Auditors prior to leaving campus for information about procedures to avoid a delay of graduation.

LSA students who elect courses which duplicate Advanced Placement or transfer credit will receive degree credit and honor points (for graded courses) for the LSA election while credit for the duplicated Advanced Placement or transfer courses will be deducted. The only exceptions to this policy are courses transferred from another school or college on the Ann

Arbor campus of the University of Michigan or from UM-Dearborn or UMFlint. In these cases, courses elected in LSA which duplicate the transfer courses are posted on the academic record as "repetitions" or "not for credit" elections. The original course elections continue to appear on the academic record for degree credit, and grades earned in these courses continue to be computed in the grade point average.

Students electing courses in LSA which are prior to those in a course sequence for credits already awarded via transfer credit will have the transferred credits deducted, and the credits and honor points earned by the LSA elections will stand. This could mean losing credit for several courses while retaining credit for only one (for example, transfer credit for one or more terms of foreign language can be deducted because of subsequently completing the first term of that language at the University of Michigan).

Official transcript(s) of the completed transfer work should be sent to:
The Office of Undergraduate Admissions
University of Michigan
300 Student Activities Building
515 East Jefferson Street
Ann Arbor, MI 48109-1316.

## Drop/Add Policy

The College expects students to finalize their academic schedules in the first three weeks of a term (first two weeks of a half-term). Later changes may be made according to the policies described below.

Courses dropped in the first three weeks of a term (first two weeks of a half-term) do not appear on the academic record. Thereafter, all courses officially dropped appear on the transcript with a "W" notation indicating withdrawal. The "W" means that the student dropped a course after the third week of a Fall or Winter Term (second week of a half-term) and that the College accepted the reason(s) for the drop and gave its approval. For students in their first fall or winter term at the University of Michigan, the $\mathrm{W}(\mathrm{s})$ are expunged from the official transcript after the term is completed.

Failure to complete a course or to secure approval for a late drop of the course results in the transcript notation Unofficial Drop (ED) which is averaged into the term and cumulative grade point averages as a failing grade (E). Courses elected on a non-graded pattern do not affect the term or cumulative grade point averages.

## Weeks one through three of a term (weeks one through two of a halfterm)

Students may make drop/add changes without advisor approval when these changes result in an academic schedule of 18 credits or less during a term ( 9 credits in a half-term). Programs of more than 18 credits during a term (more than 9 credits during a half-term) require advisor approval as do all course changes made by Honors students. Adds of classes that are closed or require permission of instructor must be accompanied by an electronic permission from the department. Students are responsible for any work assigned in the course from its beginning, regardless of the date of election. Therefore, it is important to talk with the course instructor about work assigned to date before adding a course in the second or third week.

Since the tuition and fee assessment is not set until the end of this threeweek period (two weeks in a half-term), a student dropping below 12 credits (six in a half-term) will be assessed a lower tuition charge.

## Weeks four through nine of a term (three through four and a half of a half-term)

LSA is launching a new online late-drop/add process. beginning Spring term 2016.

The deadline to submit your request is 11:59 PM EST on the late drop deadline. But we urge you to submit much earlier in case you need assistance.

## TO REQUEST A LATE-DROP:

- STEP 1: From your Backpack/Registration page in Wolverine Access, select the DROP tab at the top of the screen.
- STEP 2: Select the class, click "Drop," then click the green button "Request Late Drop."
- STEP 3: Answer the questions and click "Submit Request" at the bottom.
- STEP 4: Click "OK" on the confirmation page. You will also receive a confirmation email.

Once you've completed these steps, your request to drop will be shared with those who need to approve it. The class is not officially dropped until all approvals are granted, but you can track the progress of your request on Wolverine Access. We recommend that you continue to attend class until your drop has been finalized.

Watch your email: Under certain circumstances you may need to meet with your instructor or an academic advisor to complete the process. When the drop is completed, you will receive an automated confirmation from the Registrar.

Fees are not reduced even if a student drops below 12 credits (six in a halfterm).

TO REQUEST A LATE-ADD:

- STEP 1: In your backpack select the class to add, click "Proceed to Step Two," then click "Finish Registering."
- STEP 2: Click on the green button "Request Late Add."
- STEP 3: Answer the questions and click "Submit Request" at the bottom.
- STEP 4: Click "OK" on the confirmation page. You will also receive a confirmation email.

If you have questions please contact your advising office.
Week ten through the last day of classes of a term (after the end of week four and a half through the last day of classes for a half-term)
Only the most serious circumstances warrant dropping a course after the ninth week of the term. Fear of failing the course or no longer needing the course in a degree program are not considered valid reasons for granting approval to drop a course in this period.
In order for the Academic Standards Board to grant a drop at this time, some non-academic, extraordinary event (like serious illness or a severe personal disruption) would have occurred after the ninth-week (four and a half week of a half-term) drop deadline and would make completion of a course or courses very difficult if not impossible; the Board assumes that the student's academic performance up to the point of the disruptive event has been satisfactory. Students wishing to drop a class must obtain and complete an Election Worksheet and Request for an Exception to the Late Drop Policy form from the Newnan LSA Academic Advising Center, 1255 Angell Hall. The course instructor or GSI must complete the pertinent sections of the form. In addition, the student must meet with an academic advisor to discuss the circumstances and possible consequences surrounding the student's request. The instructor's and advisor's signatures on the form indicate that the student has discussed the request for a drop with them, but does not indicate approval. That decision is made by the Academic Standards Board.

Students who want to add a course after the ninth week of the term (four-and-a-half week of a half-term) must obtain and complete an Election Worksheet and Request for an Exception to the Late Add Policy form from the Newnan LSA Academic Advising Center, 1255 Angell. They must also secure an electronic permission (override) to add the course from the course instructor. The Academic Standards Board reviews these add and drop requests and will respond to the student via e-mail.

## Retroactive Course Drop

Students wanting to request a drop of a class from a previously completed term may do so by petitioning the Academic Standards Board. While the Board rarely grants retroactive drops of individual courses, students whose situation meets the following criteria should consult with a Board member (734.764.0332) about the possibility of the drop:

- Something non-academic and unexpected occurred after $9^{\text {th }}$ week drop deadline of the term that impeded completion of course.
- Student must provide documentation of the event to verify the date of its occurrence and its severity.
- Student had been passing the class up to the occurrence of the event which had to occur after the late drop deadline.
- Instructor must describe the student's performance in the course including the grades and the dates of exams and assignments.
- Instructor must verify that the student did not take the final/finish the final project.
- The instructor must verify that the student did not ask for an incomplete.
- Student must explain why the event affected that course and not the others.

You must meet with a Board member before you submit the petition. Please include a copy of the petition cover sheet with your written statement. Students may make requests for retroactive drops no later than one year past the end of the term of the course in question. Because this petition requires documentation and statements from the course instructors, it is best to write the petition sooner rather than later.

Describing the chronology (with exact dates) of the event(s) which affected your completion of the course(s) is crucial to the strength of your petition. The documentation you provide should verify the occurrence and severity of the event(s). The Board is unlikely to grant a request for a retroactive drop without clear documentation, and will not grant a request that does not meet the above criteria.

## Mini-Courses:

1. "W" and fee deadlines may differ for mini-courses. Check the LSA Course Guide for specific deadlines for individual courses.
2. Students requesting a late drop of a mini-course must obtain a Request for Late Drop of Mini-Courses Only form and Election Worksheet from 1255 Angell Hall. Students who are adding a mini-course must obtain the Request for Late Add form and Election Worksheet. After the ninth week (four-and-a-half week of a half-term) students must obtain the Exception to the Late Add Policy form and Election Worksheet from 1255 Angell Hall. All requests to add mini-courses must be accompanied by an electronic permission entered by the department.

All requests to drop or add mini-courses submitted after the applicable free drop/add period are decided by the Academic Standards Board.

## Withdrawal from the College

The "withdrew" notation will appear on the transcripts of students who withdraw from all of their classes after the third week of a full term (or after the second week of a half-term), including those students in their first term at the University of Michigan.

Students who have early registered for a term or half-term but who subsequently decide not to return to the University should notify:

The Office of the Registrar
1207 LSA Building
500 South State Street
Ann Arbor, MI 48109-1382
fax (734) 763-9053
email: ro.registration.questions@umich.edu
Include name, UMID number, term(s) to disenroll, signature.
To avoid a disenrollment fee, notification of intention to disenroll must be received before the first day of classes.
Students who wish to withdraw once classes have begun should contact the Newnan LSA Academic Advising Center, 1255 Angell Hall, (734) 7640332. Students who withdraw within the first three weeks of the term (two weeks for a half-term) are assessed a disenrollment fee plus a registration fee, but the registration will not appear on the student's record. Consult the Registrar's Office website for fee amounts.

Students who withdraw between the fourth and sixth week of a full term or in the third week of a half-term are assessed $50 \%$ tuition and the
registration appears on the transcript with a "withdrew" notation. These dates are posted for each term on the following website: ro.umich.edu. Full tuition is assessed after these dates.

After the sixth week of classes in a full term (third week in a half-term), students wishing to withdraw from the College must make an appointment with a member of the Academic Standards Board. After the late drop deadline (ninth week in a full term or four and a half in a half term), students who withdraw from the term will have a hold placed on their records. These students will be out of registration at least one full term (14 weeks) and must obtain permission from the Academic Standards Board to continue in the College.

## Retroactive Term Withdrawals

Retroactive term withdrawals are rarely granted. If you feel you have extraordinary circumstances that warrant an exception, make an appointment with a Board member by calling (734) 764-0332. The Board member will review your situation and the petition guidelines with you. You must have this appointment before you can submit a petition. Your petition must include a completed petition cover sheet, an instructor statement for each class, and documentation of the extenuating circumstances. You must make a case that you were unable to finish your classes and present a compelling reason why you were not able to request a withdrawal during the term. Non-attendance alone is not sufficient.

Note that there is a ONE-YEAR time limit for these requests. It's to your advantage to begin the petition process as soon as possible. Be sure to review the Pre-Submission checklist to learn about the possible implications of a retroactive withdrawal. See the petition cover sheet for additional details and instructions.

In most cases students will be notified of a decision within 7 to 10 business days of submitting the petition.

## Readmission to the College

The College of Literature, Science, and the Arts allows readmission of a student previously enrolled if the student left in good academic standing. Students who have been away for less than two years contact the Office of the Registrar, 500 South State Street, to obtain an appointment for registration. Students who have been absent from the College for more than two full years ( 24 months) must apply for readmission by submitting an Application for Reactivation which is available from the Newnan LSA Academic Advising Center, 1255 Angell Hall and on the LSA website (www.lsa.umich.edu). Students also must meet with an Academic Standards Board member. International students on temporary U.S. visa status (F-1 or J-1) who have missed a full year must contact the International Center to have their visa status updated.

If a student has done academic work out-of-residence since leaving the College, official transcript(s) of that work should be submitted to the Office of Undergraduate Admissions.

## Non-degree Status

Non-degree status offers the opportunity to elect courses in the College to meet personal objectives without enrollment in a degree program. Consideration for admission as a non-degree student is determined by (1) certified good academic standing at another college or university and eligibility to return or (2) successful completion of a college degree. Interested students should submit the Non-Degree LSA Application which is available online from the Office of Undergraduate Admissions website. Applicants are asked to submit an official transcript of their college work or official documentation confirming their college degree unless the degree was conferred by UM-Ann Arbor. High school graduates not entering U-M in the fall as freshmen may be considered for non-degree admission for summer term only.

A student who has a degree from any unit of the University of Michigan is eligible to apply for non-degree status. Non-degree status is not intended to accommodate qualified degree applicants who apply after the deadline or after enrollment limits for a particular term have been reached. Nor is non-degree status intended to accommodate high school students who wish to elect college-level courses unless they meet the conditions for dual
enrollment as defined by LSA and implemented by the Office of Undergraduate Admissions.

Students dismissed from the College for unsatisfactory academic performance may not enroll as non-degree students. No student having an academic stop in any unit of the University as a degree-seeking student may be admitted to non-degree status without receiving special permission from the Office of Undergraduate Admissions

The Office of Undergraduate Admissions grants admission as applications are received. If non-degree status is granted, the student may register for courses only on or after the first day of classes of the term for which admission has been granted. This is to ensure that degree-seeking students have first priority in electing courses. Non-degree students may register for any course as long as it is open or an Electronic Permission can be obtained.

The Registrar's Office maintains an official transcript of all courses elected by each non-degree student. Non-degree students are subject to the same policies that apply to degree-seeking students. They are expected to maintain a minimum 2.0 gpa to be eligible for continued enrollment.

If non-degree students plan to seek a degree from the College, they should discuss their interests with an admissions counselor and an academic advisor. Non-degree status is not changed to degree status except by formal application through the Office of Undergraduate Admissions. Successful completion of work elected as a non-degree student is considered, but does not ensure admission as a degree student. If admission as a degree student is granted, credit earned during enrollment
as a non-degree student may be applied toward a degree. It is considered in-residence credit (see Residence Policy) and earns honor points.

Non-degree students who would like to discuss their academic plans are encouraged to contact the Newnan LSA Academic Advising Center.

## Cross Campus Transfer to Another Unit

Several schools, colleges, and programs within the University admit only students who have completed prior liberal arts study.

Students who plan to transfer to another undergraduate school or college of the University should check to see what courses are recommended for the first year in that particular program. Students should investigate carefully the requirements for transferring to the A. Alfred Taubman College of Architecture + Urban Planning, the Penny W. Stamps School of Art \& Design, the Ross School of Business, the School of Dentistry (for the program in Dental Hygiene), the School of Education, the College of Engineering, the School of Kinesiology, the School of Music, Theatre \& Dance, the School of Nursing, the College of Pharmacy, and the Gerald R. Ford School of Public Policy. These schools have their own admission standards, programs, and goals. Transfer is not automatic; students must apply to and be accepted by any other unit within U-M, and admission to some programs is very competitive. Appropriate times to apply for transfer vary among these schools and their programs.

Student enrolled in the College of Literature, Science, and the Arts, should not neglect the requirements of the College in anticipation of transfer to another UM unit.

## Special Kinds of Academic Credit

## Experiential and Directed Reading / Independent Study Courses

The College distinguishes "Experiential" and "Independent" courses from its other course offerings.

Experiential courses (denoted EXPERIENTIAL in the LSA Course Catalogue) involve academic work that may take place in a setting other than a university classroom, laboratory, library, or studio and in which the experience is directly related to an academic discipline. Most Experiential Credit is awarded through programs administered by departments and is recorded as credit in one of the departmental Experiential course numbers.

Independent courses may be:

1. Directed Reading / Independent Study courses (denoted INDEPENDENT in the course catalog) which are designated by title and not normally offered by classroom instruction
2. courses normally offered through classroom instruction but occasionally taught on an independent study basis
3. courses not specially designated as "Independent" and normally offered as classroom instruction but elected by special arrangement with the instructor.

The following limitations apply to Experiential and Directed Reading / Independent Study credit:

Effective for all students active in LSA Fall 2013 and thereafter (as well as all August 2013 degree candidates) Approved by the LSA Faculty Winter 2015, made retroactive by the College Curriculum Committee to Fall 14

1. A combined total of 30 credits of Experiential and Directed Reading / Independent Study courses may be counted in the 120 credits required for a degree.
2. No more than 8 credits may be earned in a single term.
3. Experiential and Independent Study courses are excluded from area distribution plans.

## Credit by Examination (CBE)

Recognizing that students may have background in particular academic areas, the faculty has left it to each department to decide if it is possible for students to earn credit by examination. While the opportunities are quite limited, the amount and type of credit in any area is determined by the academic department(s) in which a student feels qualified to seek credit by examination. Some departments recognize certain subject area College Entrance Examination Board College Level Examination Program (CLEP) examinations and grant credit on the basis of specified performance on such examinations. All CLEP credit is evaluated as incoming transfer credit, and questions regarding CLEP credit should be addressed to the Office of Undergraduate Admissions. Only those CLEP examinations specifically accepted by academic departments at U-M may be used to certify credit by examination toward a degree.

In addition to, or in place of, CLEP examinations, some academic departments have prepared examinations that are administered on campus. Questions regarding such departmental examinations should be directed to the respective department.

Credit earned by examination is out-of-residence credit. It is posted on a student's transcript as credit earned toward the degree but without honor points and is identified by the notation "Credit by Examination." Failure to
pass a departmental examination is not noted on a student's transcript or in a student's academic advising file.

## Retroactive Credits in French, German, Hebrew, Latin, Modern Greek, and Yiddish

LSA students may earn up to a maximum of 8 retroactive credits for prior academic work completed in French, German, Hebrew, Latin, Modern Greek, and Yiddish. To earn these credits students must complete an upper-level course into which they were placed with a grade of B or better.

## Details and Restrictions

1. This policy is effective for all students whose first term of enrollment in LSA is Fall 1997 or after. Students who entered LSA before Fall 1997 are not eligible for retro-active language credit.
2. Students must successfully complete a designated course on the UMAnn Arbor campus with a B or better.
3. The course taken to earn retro-credits must be the first college course in the foreign language and must be designated as appropriate for this purpose by that department.
4. Although there is no time limit on retro-credit, students are advised to complete coursework and apply for retro-credits within their first year of enrollment in LSA.
5. Taking a designated course Pass/Fail disqualifies students from receiving the retroactive credit.
6. Transfer students are not allowed to earn double credit for the same work. That is, transfer students may either receive transfer credits for the foreign language or retroactive credits given through successful completion of the designated course, but not both.
7. Students may receive a maximum of 8 credits through AP/IB examination and/or retroactive credits. For guidelines on AP/IB credit, consult an LSA academic advisor or the relevant language department.
8. Retroactive language credits are available only to students who began learning French, German, Hebrew, Latin, Modern Greek, or Yiddish as a second/non-native foreign language, primarily in a school setting. Students with native language fluency (i.e., students who learned the target foreign language in ways other than formal schooling / instruction) are not eligible to earn retro-credits in that foreign language. Unusual cases will be addressed by the individual departmental undergraduate advisors.

## How to Apply for Retroactive Credits in French, German, Hebrew, Latin, Modern Greek, and Yiddish

1. If your placement is 232 ( 202 for Hebrew, Modern Greek), enroll in 232 (202 for Hebrew, Modern Greek). If you have placed out of the language requirement, enroll in a designated upper-level language course in that language.
2. Fill out the Application for Retroactive Credits. Return this form to your instructor as early as possible during the term.
3. Complete the course with a grade of $B$ or better.
4. The department will certify the grade for the course and forward it to the Newnan LSA Academic Advising Center or the Honors Program Office for authorization.

If you are awarded credits, approximately 2 months after the end of the term, it will appear on your transcript as "Credit By Exam". If the term has ended and you have not applied for retroactive credits turn in your application at the LSA Academic Advising Center, 1255 Angell Hall.

## Grade Notations and Grading Policies

## Academic Record

The Academic Record is the official record of a student's course elections, grades, and credits earned toward a degree. Since the academic record is a permanent record of a student's academic performance, it must be correct. Students who believe an error has been made on their academic records should contact the Assistant to the Academic Standards Board (1255 Angell Hall).

LSA academic records are maintained by the Records and Enrollment Department in the Registrar's Office ( 1210 LSA Building).
A student wishing to have a transcript of the academic record sent to another college or university or to an employer can place an order online from wolverineaccess.umich.edu. You will need a Uniqname and university password and should receive a confirmation number. Requests with paper attachments or needing special services should be brought to a Student Services site, 1207 LSA Building or B430 Pierpont Commons.
Mailed or faxed requests may be sent/faxed to:
Transcript and Certification Office
University of Michigan
1210 LSA Building
500 South State Street
Ann Arbor 48109-1382.
Fax: (734) 764-5556.

All requests should include the student's handwritten signature, dates of attendance, and a student identification number. A printable order form is available: ro.umich.edu/forms/transcript-form.pdf. A transcript of the academic record bearing the official seal of the University of Michigan and the signature of the Registrar is forwarded directly to the institution or person specified by the student, assuming there is no outstanding financial commitment from the student to the University. There is no fee for official transcripts. A student has the option of ordering a paper official transcript or an electronic (PDF) official transcript (if the academic record is entirely electronic). A student may request and receive an unofficial transcript, on demand, at a Student Services site, 1207 LSA Building or B430 Pierpont Commons. The unofficial transcript contains additional information not included in the official transcript. It should not be used in lieu of an official transcript for the purposes of admission or employment. A copy of your unofficial transcript can be obtained from:
wolverineaccess.umich.edu.
A student may pay a fee set by the Registrar's Office and request a special transcript including an appendix listing the original grades submitted for all courses elected "Pass/ Fail."

A specially prepared transcript indicates that this option has been chosen. A request for a special transcript does not permanently revise the original academic record.

See ro.umich.edu for details.

## Summary of Transcript Notations

|  |  | Pass/Fail |  | Official Audit (VI) |
| :---: | :---: | :---: | :---: | :---: |
| Letter Grade | Honor Points | P (passed) | credit, no honor points | VI (Audit) no credit, no honor points |
| A+ | 4.0 | F (failed) | no credit, no honor points | Miscellaneous Notations (NR, NG) |
| A | 4.0 | Credit/No Credit |  | NR (no report) no credit, no honor points <br> NG (no grade reported) no credit, no honor points |
| A- | 3.7 | CR (credit) | credit, no honor points |  |
| B+ | 3.3 | Satisfactory/Unsatisfactory |  | A notation of $P, F, C R, N C, S, U$ does not affect a student's term or cumulative grade point average. A notation of $I, Y, N G$ or $N R$, if not replaced by a passing grade, eventually lapses to E or ED and, for graded elections, is computed into the term and cumulative grade point averages. |
| B | 3.0 | S (satisfactory) | credit, no honor points |  |
| B- | 2.7 | U (unsatisfactory) | no credit, no honor points |  |
| C+ | 2.3 | (The S/U symbols are used by the School of Education.) |  |  |
| C | 2.0 | Withdrawal/Drop |  | *LSA Curriculum Committee approval is required to use a Y grade. See "Grading for a Two-Term Course (Y)" below. |
| C- | 1.7 | W (official withdrawal) <br> ED (dropped unofficially) | no credit, no honor points no credit, no honor points |  |
| D+ | 1.3 | (A notation of ED for a graded election has the same effect on the grade point average as does an E.) |  | If an LSA student elects a course in another Ann Arbor unit which is graded on a pattern not indicated here (for example, graduate courses in the Stephen M. Ross School of Business), the grade will be translated by the Registrar to fit with LSA's letter grading scale. |
| D | 1.0 |  |  |  |
| D- | 0.7 | Incomplete/Work in Progress |  |  |
| E | 0.0 | 1 (incomplete) | no credit, no honor points |  |
|  |  | $Y^{*}$ (work in progress for project approved to extend for two successive terms) | no credit, no honor points |  |

## Official Withdrawal (W) / Unofficial Withdrawal (ED)

If a student withdraws officially from a course after the first three weeks of a full term (first two weeks of a half-term), the course is recorded on the transcript with a W notation; neither credits toward a degree program nor honor points are earned. The W notation is posted regardless of a student's reasons for requesting the official withdrawal. If a student unofficially withdraws from a course (i.e., stops attending the course but does not obtain permission for an official withdrawal), the notation ED (Unofficial Withdrawal) is posted on the transcript. An ED is computed into the term and cumulative grade point averages as an E if the course was elected for a regular letter grade; neither credit toward a degree program nor honor points are earned.

## Grading for a Two-Term Course (Y)

A few courses (e.g., senior Honors thesis courses, Global Course Connections, or some Biological Sciences research courses) are approved as "two-term" sequences (approval has to be granted by the LSA Curriculum Committee). In these specially approved cases only, an instructor can report a $Y$ grade at the end of the first-term course to indicate work in progress. When a final grade is reported at the end of the second term, that final grade is posted for both terms' elections. In cases where a $Y$ grade is reported for a course which is not approved to extend for two successive terms, an I (Incomplete) is posted on the transcript and the course is subject to the regular deadline for incompletes. Students needing more time to complete this work must petition the Academic Standards Board for an official extension of the deadline (see below).

## Incomplete Courses (I)

An "Incomplete" (denoted on the transcript by the symbol "I") may be reported only if the amount of unfinished work is small, the work is unfinished for reasons acceptable to the instructor, and the student's standing in the course is at least C-. An I grade not finished by the incomplete deadline or an approved extended deadline lapses to $E$.

Students who find themselves unable to finish all of the assignments for a course before the end of the term may request a grade of Incomplete from the instructor. The instructor is under no obligation to grant this request, and can only grant it if:

- the student has already finished about $70 \%$ of the work;
- the student's current grade in the course is at least C-.

If the instructor agrees to give an incomplete, the student will have up to the end of the 4th week of the next Fall or Winter term of registration to complete the work. If the instructor has not submitted a grade for the student by 10 days past the deadline, the incomplete will lapse to an "E".
The "I" grade itself does not affect the term or cumulative grade point averages. Students may finish the work for incompletes while not in residence even if the Board has dismissed them from the College for reasons of unsatisfactory academic performance.

If the student does complete the work within the allowed period, the Registrar will post the final grade on the transcript; however, the "I" will remain next to the grade on the transcript. Students who are not able to finish the work within the allowed period may apply to the Academic Standards Board for an extension of the incomplete deadline. In order to qualify for an extension, the student must present documented unexpected circumstances that prevented completion of the course within the allotted time period. Unfinished "I" grades will lapse to "E" grades beyond the regular or extended incomplete deadline. In such cases, the student will earn no degree credit and lower his/her term and overall GPAs. Unfinished courses elected on a non-graded pattern (Pass/Fail, Credit/No Credit) lapse to "Fail or "No Credit" but do not affect the term or cumulative grade point averages.

## No Report (NR), No Grade (NG)

The instructor should report an NR if a student stops attending before the end of the term, but has not dropped the class or requested an Incomplete. If the NR is not resolved by the fourth week of the next fall or winter term in residence, the NR grade in a graded election is lapsed to an ED.*

The NG is recorded when a student has been registered into a class after the web grade rosters have been sent to the instructor. The NG will convert to an ED* if unresolved after the first four weeks of the next fall or winter registration.
*An ED carries no degree credit, and the course is computed as an E in the term and cumulative grade point averages.

## Non-Graded Courses (P/F, CR/NC, S/U)

Students may count a maximum 30 non-graded credits toward the 120 credits required for a degree. Non-graded credits are earned in courses for which no letter grade ( $A+$ through $E$ ) is recorded on the transcript. Only those non-graded credits actually earned are counted as part of the total number of non-graded credits applicable toward a degree.

1. A student cannot choose to elect a course by the $C R / N C$ and $S / U$ grading patterns; the optional non-graded pattern is P/F.
2. Non-graded courses earn credit toward a degree but not honor points. Therefore, "Pass" (or "Credit") grades do not enter into the computation of the term or cumulative grade point averages.
3. A change in grading pattern for a course is not permitted after the first three weeks of a full term (first two weeks of a half-term). Grading pattern choices must be modified through the registration system. Courses elected after the third week of a term may not be elected on a non-graded basis unless the course is offered as a "mandatory non-graded" course. The only exceptions to this policy
are short courses (e.g., EARTH 101-115) which have started after the beginning of the term. In these cases, the grading pattern may not be changed after the second week of class. The Academic Standards Board does not grant exceptions to this policy.
4. The College holds students responsible for ensuring the accuracy and completeness of their class schedule.
5. Instructor approval is not required for a choice in the elected grading pattern nor should the instructor be informed of such a choice. Instructors report letter grades (A+ through E) for all students in their courses, except in mandatory CR/NC courses. In the case of a student who has chosen to elect a course "Pass/Fail," the Office of the Registrar converts the letter grades according to the following policies:
a. Grades of A+ through C- are posted on a transcript as "P" (Pass); credit toward a degree is earned.
b. Grades of $D+$ through $E$ are posted on a transcript as "F" (Fail); no degree credit is earned.
6. In the case of an incomplete course elected "Pass/Fail," credit is posted only when the work has actually been completed and a grade of at least C-has been reported. "Pass/Fail" courses which are not finished lapse to "Fail," although the term and cumulative grade point averages remain unaffected.
7. If the instructor of a mandatory Credit/No Credit course believes that the amount and quality of a student's work is such that it deserves credit, CR (Credit) is posted on the transcript. If the instructor believes that a student's work does not justify the awarding of credit, NC (No Credit) is posted on the transcript. Courses offered mandatory Credit/No Credit are designated in the course listings.
8. Students who have transferred "non-graded" credit to the College must count that credit as part of the maximum 30 hours of "nongraded" credit which may be counted toward an LSA degree. Advanced Placement credits as well as transfer courses for which students earned grades at another institution do not count against the 30 -credit limit.
9. Classes at Camp Davis may not be elected on a Pass/Fail basis (effective Winter Term 2012 for Spring Term 2012 and thereafter).
10. STDABRD 344, Contemporary London, may not be elected on a Pass/Fail basis (effective Winter Term 2015).
11. Non-graded courses may be included in a distribution plan.
12. Pass/Fail courses may not be included in a major or in a minor.
13. Experiential and Directed Reading / Independent Study courses that are graded on a Credit / No Credit or Satisfactory / Unsatisfactory basis may be included in a major.
14. The final course in a sequence used to satisfy the Language Requirement may not be elected on a Pass/Fail basis. (Effective for all students admitted to the College in Fall Term, 1995 and thereafter.)
15. In computing the grade point average for honorary societies, the reported letter grades for "non-graded" elections are computed into the cumulative grade point average.
16. No course elected "Pass/Fail" will receive the Honors notation on the transcript or be counted as an "Honors" course for the Sophomore Honors Award.
17. A student may pay a special fee set by the Registrar's Office and request a specially prepared appendix to the transcript on which the original grades submitted for all courses elected "Pass/Fail" are listed.

## Auditing Courses

Students are expected to elect courses for credit. Occasionally, however, a student may wish to attend a course but not elect it for credit. This arrangement can take the form of an official audit (sometimes called Visitor status).
An official audit obligates a student to attend classes regularly and complete course requirements (e.g., papers, laboratory assignments, tests, and the final examination). Regular tuition fees apply, and the course appears on the transcript with the grade VI (Audit); no degree credit is earned. To arrange an official audit, a student must submit a Request for

Audit Status form to the Academic Standards Board, 1255 Angell Hall. A request to officially audit a course must be approved by the end of the third week of a full term or second week of a half-term. Students who do not fulfill course requirements earn the grade ED to indicate that the course was unofficially dropped. In these cases, the term and cumulative grade point averages remain unaffected.

## Repetition of Courses

Effective Spring 2015; updated 3/25/2015
If a course was taken in residence and a grade of $A+$ through $C, P, C R$, or $S$ was earned, then repetition of this course results in no additional credit or honor points. The course and grade appear on the transcript with the notation "Not for Credit." A student repeating a course in which Cthrough D- was previously earned will receive honor points but no additional credit toward a degree. The course appears on the transcript with the notation "Repetition." Repetition of a course in which an E, F, or U grade was originally earned produces both credits toward a degree and honor points for courses elected on the graded pattern; there is no special transcript notation. In all such cases, the first election and grade earned
remain on the transcript. The grades earned by repetition of courses are not averaged and posted as a single entry; but are posted as separate elections.

## Out of Sequence Courses

Students should assume that once they take an in-residence course in a sequence (chemistry, mathematics, language, and others), they cannot receive credit for taking a prior course in the sequence. For example, a student who took SPANISH 231 after taking and passing SPANISH 232 on the Ann Arbor campus would not receive credit for the SPANISH 231 course.

Students who transfer in credit for a course in a sequence should assume they will lose credit for that course if they take a prior course in the sequence in residence at Ann Arbor. For example, a student taking MATH 115 in Ann Arbor after transferring credit for MATH 116 from another institution would lose the credit for the MATH 116 course.

Students should contact a LSA academic advisor if they have questions about whether or not a course is part of a sequence.

## Grade Point Average

## Term and Cumulative Grade Point Averages

The Term Grade Point Average is determined by dividing the total number of Michigan Semester Hours (MSH) elected during a term into the total number of Michigan Honor Points (MHP) earned during the same term. The Cumulative Grade Point Average is determined by dividing the total number of Michigan Semester Hours (MSH) into the total number of Michigan Honor Points (MHP) earned. Notations of Y, I, NR, and NG are not initially calculated into the term or cumulative grade point averages. Notations of I, NR, and NG, if unresolved by the end of the fourth week of the next fall or winter term in residence or by an approved extension deadline, lapse to E or ED and are computed into both the term and cumulative grade point averages, if the course was a graded election.

## Minimum Term and Cumulative Grade Point Averages Required

To be eligible for continued enrollment, a student must earn at least a 2.0 term grade point average and a 2.0 cumulative grade point average. If a student fails to accomplish this, the "honor point deficit" can be determined by multiplying the Michigan Semester Hours (MSH) elected by 2.0 and subtracting the total number of Michigan Honor Points (MHP) earned. Only honor points earned in courses elected at the University of Michigan (Ann Arbor, Dearborn, or Flint campus) may affect the grade point average.

## Honors and Awards for Superior Academic Achievement

The College acknowledges the superior academic achievement of its students in a variety of ways. These include the awarding of departmental academic awards, university honors, honors at graduation, election to
national honor societies, LSA Current Student Scholarships, and special awards. Transfer credit does not count for honors.

## Departmental Awards

Awards that recognize superior academic performance in the major are described on the LSA website:
www.Isa.umich.edu/students/academicsrequirements/honorsawards/dep artmentawards

## University Honors

## Honors Convocation

Honors Convocation is an annual celebration where undergraduate students are recognized for their distinguished academic achievements. It is one of the University's most important academic traditions.

The convocation is held in March of each year in Hill Auditorium; seating is available on a first-come, first-served basis. While there is no set dress code for Honors Convocation, business casual attire is recommended for both students and guests.

Immediately following the ceremony, students and guests are invited to attend a reception in the historic Michigan League, where they will have the opportunity to meet President Coleman, the Provost, and the deans of the schools and colleges.

Students who earn one or more of the following award designations in the previous calendar year will be recognized at this event:

- James B. Angell Scholar
- University Honors
- William J. Branstrom Freshman Prize

A notation for each honor is posted on the student's transcript by the Office of the Registrar.

Students endorsed for Rhodes, Marshall, and Mitchell Scholarships by the University of Michigan also are recognized at the Honors convocation, along with winners of the Thurnau Professorships.

Thurnau Professorships were established in 1988 by a bequest from Arthur F. Thurnau to recognize and reward faculty for outstanding contributions to undergraduate education. The professorships honor tenured faculty members who, through their commitment and investment in undergraduate teaching, have had a positive impact on the intellectual development and lives of students.

## Contact

Website: honors.umich.edu
For additional information about Honors Convocation, please contact the Office of University and Development Events at (734) 647-7900 or e-mail HonorsInfo@umich.edu.

For information about award eligibility, please contact the Registrar's Office at (734) 764-6280 or e-mail ro.grades.questions@umich.edu.

## James B. Angell Scholars

Students who achieve an all "A" record for two or more consecutive terms are recognized as James B. Angell Scholars. The student must have taken a minimum of 14 credit hours in the fall and winter terms, including at least 12 credits elected on a graded (A-E) basis. Recipients of this award are recognized during Honors Convocation according to the number of consecutive terms they have earned the Angell Scholar designation. Students who have attained the status of Angell Scholar may retain this designation if they maintain an all A record for terms with fewer than 14 credits, but those terms will not be included in the term count for the award. Any grades other than A+, A, A-, P, S, W, Y, or CR earned during a full or half-term make the student ineligible for Angell Scholar Honors. Angell Scholars are selected and honored annually, and the award is posted to their transcript by the Office of the Registrar.

## University Honors

The University Honors designation is awarded to students who earned a 3.5 grade point average or higher during a term. The student must have taken a minimum of 14 credit hours during a term, including at least 12 graded credits. Students who achieve University Honors designation for both Winter and Fall terms and seniors who achieve University Honors designation for either of these terms are recognized at Honors Convocation, and the award is posted to their transcripts by the Office of the Registrar.

## William J. Branstrom Freshman Prize

Updated 8/11/2015
First-term freshmen who rank in the upper five percent of their class within their school or college are awarded the William J. Branstrom Freshman Prize. The student must have taken at least 14 graded (A-E) credits during the previous fall term to be eligible for this award. Advanced placement credit does not disqualify a student for consideration of this award. Recipients of this award are recognized during Honors Convocation.

## Honors at Graduation

## Highest Distinction / High Distinction / Distinction

Degrees with distinction are awarded on the basis of rank in class. Students who have completed at least 58 credits in residence, at least 45 of which are "graded" (A+ to D-), and rank in the top 3\% of their class are recommended for a degree "with Highest Distinction." Those students who rank in the top $10 \%$ of their class but not in the top $3 \%$ are recommended for a degree "with High Distinction." Those students who rank in the top $25 \%$ of their class but not in the top $10 \%$ are recommended for a degree "with Distinction." A notation is made on the diploma and the transcript. The GPA ranges for the distinction notations are determined each May, based on the cumulative GPAs of LSA graduates of the May degree period. Those same numbers are used for the August and December degree periods of that calendar year.

The ranges for May 2015 were:

| Highest Distinction: | $3.951-4.000$ |
| :--- | :--- |
| High Distinction: | $3.845-3.950$ |
| Distinction: | $3.692-3.844$ |

## Highest Honors / High Honors / Honors

Students who have completed at least 58 credits in residence and have demonstrated high academic achievement and capacity for independent work in a departmental Honors plan may be recommended for a degree "with Highest Honors," "with High Honors," or "with Honors" in the field of the major. Capacity for independent work must be demonstrated in part by superior performance in an honors program or some achievement of equivalent character. A minimum overall grade point average of 3.4 is required. A notation is made on the diploma and the transcript.

## National Honor Societies

A notation is posted on a student's transcript by the Registrar's Office for induction to Phi Beta Kappa, Phi Kappa Phi, and Tau Beta Pi. Induction into other National Honor Societies on the UM-Ann Arbor campus is not noted on the student's transcript.

## Phi Beta Kappa

Phi Beta Kappa is the oldest and most widely recognized scholarly honorary society in America. Founded in 1776, it celebrates excellence in the liberal arts and sciences. The U-M chapter, Alpha of Michigan, was founded in 1907 and has inducted almost 7000 exceptional students into its ranks.

Fewer than ten percent of each year's graduating seniors and a very few juniors may be invited to join Phi Beta Kappa from the College of Literature, Science, and the Arts. Seniors with outstanding achievements in the liberal arts in other schools and colleges of the University of Michigan may be invited to join if they have earned a substantial number of liberal arts credits. Transfer students with superior academic records in the liberal arts may also receive invitations to join.

Invitations to membership in the national Phi Beta Kappa Society are issued by the local chapter, taking into account achievement in the liberal arts as indicated by a student's cumulative grade point average, strength of curriculum, demonstrated proficiency in foreign language and mathematics, and other factors. The selection committee looks for evidence of both breadth and depth of interest in the liberal arts and sciences. A very high GPA alone is not a guarantee of election to Phi Beta Kappa. Fourth-term proficiency in a language other than English (the equivalent of the LSA language requirement) is required, as is graded work in a sufficiently advanced quantitative area (MATH 115 or higher, STATS 250 or higher, most, but not all, QR/1 courses). A combination of two QR/2 courses is not acceptable. Elements that can mitigate against an invitation include a large amount of pass/fail work, an entire distribution area taken pass/fail, more than one or two academic terms of fewer than four academic courses of at least three credits each, and repeated semesters with light course loads.

Membership in Phi Beta Kappa lasts a lifetime and shows commitment to the liberal arts and sciences and to freedom of inquiry and expression. It also provides a competitive edge in the marketplace. Potential employers regularly contact local chapters or the national office to confirm the membership of job seekers who have listed Phi Beta Kappa among their credentials.

You can contact the local chapter at phibetakappa@umich.edu or by regular mail or phone at:

Phi Beta Kappa
LSA Honors
1330 Mason Hall

Ann Arbor, MI 48109-1027
(734) 764-6274

## Phi Kappa Phi

www.umphikappaphi.umich.edu
The Honor Society of Phi Kappa Phi is the nation's oldest, largest, and most selective all-discipline honor society. Founded in 1897 at the University of Maine, the distinguishing characteristic of Phi Kappa Phi is its belief that all branches of higher education merit recognition. It extends its interest and eligibility across the entire range of academic inquiry and calls attention to the fact that today's world needs a breadth of understanding far beyond that of a specialist who restricts his or her outlook to a specific specialty.

Membership is by invitation only to the top 10 percent of seniors and graduate students and 7.5 percent of juniors. Faculty, professional staff, and alumni who have achieved scholarly distinction also qualify. The Society's mission is "to recognize and promote academic excellence in all fields of higher education and to engage the community of scholars in service to others."

Phi Kappa Phi annually inducts approximately 30,000 students, faculty, professional staff, and alumni. Once inducted, Phi Kappa Phi members gain a lifelong passport to a global network of academic and professional opportunities. Since its founding, more than 1 million members have been initiated.

The University of Michigan chapter of the Phi Kappa Phi Honor Society was formed in 1926. Since its founding, more than 8,000 students who have met the high academic standards of the organization have been initiated into the University of Michigan chapter.

Please contact the chapter via e-mail at umphikappaphi@umich.edu
or via regular mail at:
U-M Chapter of Phi Kappa Phi
Office of the Provost and Executive Vice President for Academic Affairs
4012 Fleming Administration Building
503 Thompson Street
Ann Arbor, MI 48109-1340

## Tau Beta Pi

Tau Beta Pi is the oldest engineering honor society and also the second oldest collegiate honor society in the United States. Founded at Lehigh University in Bethlehem, PA, on June 15, 1885, the organization has since initiated more than 500,000 members, making it the world's largest engineering society. Each year, 8,000 new members are initiated through 237 collegiate chapters spread across the country. Tau Beta Pi was
founded "to mark in a fitting manner those who have conferred honor upon their alma mater by distinguished scholarship and exemplary character as undergraduates in the field of engineering, or by their attainments as alumni in the field of engineering, and to foster a spirit of liberal culture in the engineering colleges." Invitations to membership are extended to students of exemplary character in the upper $1 / 5$ of the senior engineering class and top $1 / 8$ of the junior engineering class.

The University of Michigan chapter of Tau Beta Pi (Michigan Gamma) was founded in 1906 and continues to honor distinguished scholarship and
exemplary character of both eminent and aspiring engineers. Through service to both the college and our community, Tau Beta Pi members maintain both ethical integrity and a spirit of liberal culture.

For information, e-mail tbp.officers@umich.edu
LSA students who are pursuing a dual degree program with the College of Engineering are eligible for membership.

## LSA Current Student Scholarships

Scholarships to continuing undergraduates in the College of Literature, Science, and the Arts (LSA) are funded by gifts to the College of LSA. These gifts include donations to the LSA Annual Fund for Student Support, scholarship endowments, bequests and annual gifts from donors. Each year hundreds of students receive a College of Literature, Science, and the Arts Current Student Scholarship, funded from one or more of our scholarship accounts.

College Eligibility. Applicants must be continuing students (completed two academic terms in LSA) pursuing a degree program in LSA and enrolled for at least 12 credit hours during the fall and winter academic year.

Monetary Award. The LSA Current Student Scholarship monetary award is determined based on your scholarship application and information in your financial aid package from the University of Michigan Office of Financial Aid. The LSA Scholarship Office has access to each applicant's financial aid package to establish eligibility and the scholarship amount. Please note that these scholarships are not awarded or administered by the Office of

Financial Aid. Monetary awards have ranged from $\$ 500$ to $\$ 10,000$ for the fall and winter terms. An award in one year does not guarantee continuation of the LSA Current Student Scholarship in subsequent years.

To be Considered. Complete and submit the LSA Current Student Application by the deadline posted on the LSA website:
www.Isa.umich.edu/students/scholarships/currentstudents
Complete and submit the Free Application for Federal Student Aid (FAFSA) by the University of Michigan, Office of Financial Aid deadline posted on their website:
www.finaid.umich.edu/Apply_and_Receive_Aid/Applying_for_Aid/current. asp

For information on other scholarship opportunities for LSA students, please visit the website:
www.Isa.umich.edu/students/scholarships

## Rhodes, Marshall, and Mitchell Scholarships

Rhodes Scholarships and Marshall Scholarships are among the world's most prestigious academic awards for graduate students.

Since the estate of British philanthropist Cecil J. Rhodes established Rhodes Scholarships in 1904, twenty-five University of Michigan alumni have studied as Rhodes Scholars at Oxford University. Thirty-two Americans are named Rhodes Scholars each year. International students may apply to or be nominated by eighteen other jurisdictions designated by the Rhodes Trust. Students are nominated and appointed based on literary and scholastic attainments, integrity of character, leadership, interest in and respect for other human beings, energy to use talents to the fullest, and a fondness for and success in sports.

Marshall Scholarships, founded by an Act of Parliament in 1953, finance opportunities for young American scholars of high ability to study in the United Kingdom. The scholarship commemorates the humane ideals of the European Recovery Program (Marshall Plan) and funds one or two years of study. At least forty Marshall Scholarships are awarded annually to American students who demonstrate maturity, self-reliance, and selfdiscipline. Fifteen University of Michigan students have been named Marshall Scholars.

In 1999, the George J. Mitchell Scholarships were established for American university students. This third competitive national scholarship program,
supported by the Irish and British governments and other benefactors, honors former Senator George J. Mitchell for his contributions to the Northern Ireland peace process. The prestigious award allows Americans to pursue one year of post-graduate study in Ireland and Northern Ireland. Up to twelve George J. Mitchell Scholarships are awarded annually to students who have shown both academic distinction and the potential for leadership.

Eligibility: To be eligible for the Rhodes, Marshall, or Mitchell Scholarships, students must hold an undergraduate degree by the fall in which the scholarship begins. Successful candidates usually have a GPA of 3.8 or better and a record of participation in activities that demonstrate leadership and commitment. All Rhodes, Marshall, and Mitchell applicants need an institutional endorsement.

Consult the Provost's Council on Student Honors Scholarships website to become familiar with the application process and deadlines.
www.provost.umich.edu/scholars/students/students.html
The competition for these prestigious scholarships is fierce, but that does not deter Michigan's deeply motivated and widely accomplished students.

## Grade Review / Academic Status

At the end of each term and half-term, the Academic Standards Board reviews the academic records of all LSA students showing evidence of academic difficulty. The College uses four basic types of actions: Action Pending, Probation, Suspension, and Dismissal.

## Action Pending

Action Pending is assigned when a student's academic record for a term is incomplete (i.e., not all grades are submitted or the student has an " $I$ ") and the student is in danger of completing the term with less than a 2.0 grade point average. The transcript is reviewed again when final grades have been reported or after incomplete grades have lapsed. This review normally takes place during the fifth week of a student's next fall or winter term in residence. If all incomplete work has not been finished, or if it has been finished with grades that result in a grade point average below a 2.0, a student will be placed on Probation.

Special Action Pending is assigned when a student has an unusually large number of incomplete grades. These students are required to meet with an Academic Standards Board member within the deadline specified in the notification letter to discuss their plans to complete the work. A student who fails to make this appointment could be disenrolled from the term.

## Probation Actions

Probation is assigned to all students in the College whose term grade point average falls below 2.0 but whose deficit is not severe enough to justify suspension. Students are placed on probation whenever the term grade point average falls below a 2.0 during a term or half-term, regardless of the number of courses or credits elected or whether the cumulative grade point average remains above a 2.0.

Probation Continued is assigned when a student on probation has earned a term grade point average above a 2.0 but the cumulative grade point average of 2.0 has not yet been achieved. Probation Continued might also be assigned if a probationary student has a term average of exactly 2.0 or slightly below 2.0, so long as members of the Academic Standards Board feel that the student is making minimum progress toward fulfilling degree and program requirements.

Special Probation is assigned to students whose record leaves some question about whether immediate continuation in the College is advisable. These students are required to meet with an Academic Standards Board member within the deadline specified in the notification letter to plan appropriate course electives. A student who fails to make this appointment will be disenrolled from the term.

The conditions for a student on Probation or Probation Continued are that all courses in the ensuing term will be completed by the end of the term with a term grade point average greater than 2.0. Specific conditions of probation are stated in a letter notifying the student of the action taken by the College.

All students placed on probation are required to discuss their academic situation with an academic advisor or a member of the Academic Standards Board and to take advantage of College and University resources to assist them in improving their level of academic performance.

Raised Probation officially confirms that a student has completed a probationary term with better than a 2.0 grade point average and that a student's cumulative grade point average is at least a 2.0.

## Suspension

Students may be suspended from the College:

- for incurring a significant honor point deficit in a single term or halfterm,
- for failure to make satisfactory progress toward a degree, or
- for any other reason deemed sufficient under the policies of the LSA Academic Standards Board.

The Board can suspend students after any term of enrollment, including the first; there is no automatic, one-term probation period before the Board will suspend a student from the College. A term GPA close to or equal to 0.00 will cause the Board to place a suspend action on a student record, as will significant failure to achieve a GPA of at least 2.0 in the student's declared major. Thus, students may find themselves suspended after one term of very poor academic performance. Academic suspension is not punitive; rather, it aims to prevent further damage to the student's GPA. Students whom the Board suspends must remain out of registration for at least one Fall or Winter semester and then request readmission through a written petition that they must submit at least 6 weeks prior to the term they hope to return.

The Board carefully reviews students' academic records at the end of each semester in order to determine the appropriate academic action to take on them. Records with poor or failing grades indicate that serious obstacles are preventing academic success, obstacles that students need to address before continuing their studies. Suspension will allow students the time to confront these obstacles so that they may return ready to perform successfully and ultimately to graduate. Board members are available to suspended students to help them plan their next best steps after learning about their suspension.

## Reinstatement

Suspended students are expected to be out of registration for at least one full fall or winter term following their suspension. Reinstatement is not automatic after that time; students must petition to be readmitted. When they feel they are ready to return, students should make an appointment with a member of the Academic Standards Board by calling (734) 7640332. This meeting or phone appointment should take place at least eight weeks before the start of the desired return term. The purpose of this appointment is to discuss the factors that led to the suspension, talk about what the student has been doing while away, and consider academic plans. During this conversation the Board member will provide guidance about writing the reinstatement petition. Petitions are due at least six weeks before the start of the desired return term and should include the following:

- a thoughtful analysis of what went wrong before,
- evidence that past problems have been resolved or eliminated (or a strategy for managing ongoing issues),
- a description of how the student has used the time away, and
- a viable academic plan for the student's remaining terms.

Students are strongly encouraged to complete academic work elsewhere during the suspension period; strong grades in such classes will greatly strengthen one's case for readmission. These students must consult with an LSA academic advisor or Board member before taking classes elsewhere, to make sure the courses are appropriate and transferable.

Relevant supporting documentation should be attached to all reinstatement petitions. Some examples of appropriate documentation are: statements from health care providers if academics were impacted by physical or mental health issues, transcript and/or instructor statements if taking classes elsewhere, letter from employer if working during suspension period, etc.

After reviewing the reinstatement petition, the Academic Standards Board will make a decision and will notify the student by e-mail.

## Dismissal

Students may be permanently dismissed from the College if the Academic Standards Board determines that continuation in the College is unlikely to lead to a degree.

## Academic Integrity in the College of Literature, Science, and the Arts

## LSA Community Standards of Academic Integrity

The undergraduate academic community, like all communities, functions best when its members treat one another with honesty, fairness, respect, and trust. The College holds all members of its community to high standards of scholarship and integrity. To accomplish its mission of providing an optimal educational environment and developing leaders of society, the College promotes the assumption of personal responsibility and integrity and prohibits all forms of academic dishonesty. Conduct that violates the academic integrity and ethical standards of the College community cannot be tolerated and will result in serious consequences and disciplinary action.

Just as students rightly expect to learn in an atmosphere of integrity and mutual trust, so too faculty members are right to expect that all students who seek instruction and evaluation from them will do so honestly. All members of the College community must take an active role in helping create and maintain a culture of integrity in LSA.

An instructor has the responsibility to make clear what academic dishonesty is and to help her or his students understand what uses may be made of the work of others and under what conditions. A student is responsible for becoming familiar with the LSA Community Standards of Integrity and for discovering the sort of conduct which will be viewed as an attack upon the community's values.

Questions regarding alleged academic misconduct should be addressed to the LSA Assistant Dean for Undergraduate Education (Office of Student Academic Affairs), 1213 Angell Hall. Frequently asked questions and answers, as well as procedures to be followed for resolving academic misconduct in LSA can be found at www.lsa.umich.edu/academicintegrity.

## Examples of Academic Misconduct

Academic misconduct includes but is not limited to the following:

## Cheating

Cheating is committing fraud and/or deception on a record, report, paper, computer assignment, examination or any other course requirement. Examples of cheating are:

- Obtaining work or information from someone else and submitting it under one's own name.
- Using unauthorized notes, or study aids, or information from another student or student's paper on an examination.
- Communicating answers with another person during an exam.
- Altering graded work after it has been returned, and then submitting the work for re-grading.
- Allowing another person to do one's work and submitting it under one's own name.
- Preprogramming a calculator or other electronic device to contain answers or other unauthorized information for exams.
- Submitting substantially the same paper for two or more classes in the same or different terms without the expressed approval of each instructor.
- Taking an exam for another person or having someone take an exam for you.
- Fabricating data which were not gathered in accordance with the appropriate methods for collecting or generating data and failing to include a substantially accurate account of the method by which the data were gathered or collected.


## Plagiarism

Plagiarism is representing someone else's ideas, words, statements or other works as one's own without proper acknowledgment or citation. Examples of plagiarism include:

- Copying word for word or lifting phrases or a special term from a source or reference - whether oral, printed, or on the Internet - without proper attribution.
- Paraphrasing, that is, using another person's written words or ideas, albeit in one's own words, as if they were one's own thought.
- Borrowing facts, statistics, or other illustrative material without proper reference, unless the information is common knowledge, in common public use.


## Unacceptable Collaboration

Collaboration is unacceptable when a student works with another or others on a project, then submits a written report which is represented explicitly or implicitly as the student's own work. Using answers, solutions, or ideas that are the result of collaboration without citing the fact of collaboration is improper. Students also engage in unacceptable collaboration when they expressly have been instructed to do their own work and have not been given prior approval by the instructor to collaborate.

## Falsification of Data, Records, and Official Documents

- Fabrication of data
- Altering documents affecting academic records
- Misrepresentation of academic status
- Forging a signature of authorization or falsifying information on an official academic document, grade report, letter of recommendation/reference, letter of permission, petition, or any document (e.g., a Doctor's excuse) designed to meet or exempt a student from an established class, College or University academic regulation.


## Aiding and Abetting Dishonesty

Providing material or information to another person with knowledge that these materials or information will be used improperly. This includes both deliberate and inadvertent actions.

## Unauthorized or Malicious Interference/Tampering with Computer Property

Unauthorized or malicious interference or tampering with computers is considered an academic offense and, as such, is subject to College judicial sanction.

## Classroom Disturbances

Classroom disturbances can also serve to create an unfair academic advantage for oneself or disadvantage for another member of the academic community. Some examples of actions that may violate the LSA Community Standards of Academic Integrity include:

- Interference with the course of instruction or an exam to the detriment of other students.
- Disruption of classes or other academic activities in an attempt to stifle academic freedom of speech
- Failure to comply with the instructions or directives.


## LSA Degree Requirements

This document is an unofficial representation of the information available on the LSA website. For official and updated information, please view the LSA website.

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## LSA Degree Requirements

The College awards four degrees, the Bachelor of Arts (A.B.), the Bachelor of Science (B.S.), the Bachelor in General Studies (B.G.S.), and the Bachelor of Science in Chemistry (B.S. Chem.).

The Bachelor of Arts and Bachelor of Science degrees require a general understanding of the humanities, natural sciences, and social sciences as well as in-depth study of at least one subject area. Students are also required to achieve competency in the use of the English language and to acquire proficiency in a language other than English. They must elect one or two courses designed to develop skills in quantitative reasoning and one course addressing issues involving race and ethnicity. Beyond these general requirements, students may choose elective courses to complete a minimum of 120 credits. The Bachelor of Science degree requires 60 credits in physical and natural science and mathematics. Students pursuing a secondary teaching certificate are required to earn additional credits through the School of Education.

The Bachelor in General Studies degree encourages students to take responsibility for structuring their own multidisciplinary academic programs. This degree requires a minimum of 120 credits, and includes First-Year Writing, Upper-Level Writing, Race \& Ethnicity, and Quantitative Reasoning requirements. At least 60 credits of courses numbered 300 or above must be completed with no more than 20 of these 60 credits from one SUBJECT. Residential College students doing a BGS must include in their academic plan the completion of the RC arts practicum, the live-in requirement, the RC language requirement and the four-RC-course requirement. RC students should consult advisors in the Residential College to plan their BGS degree.

## The Bachelor of Science in Chemistry is described elsewhere.

Students are responsible for knowing and meeting degree requirements. A student may comply either with the degree requirements that are in effect during the first term of enrollment in the College or at the time of graduation. Requirements for majors are those applicable at the time the student declares the major.

Honors students must consult the Honors Program about special degree requirements, courses, policies, and procedures.

## Selection of a Degree Program and Program Advising

Students should declare their choice of degree program sometime before the beginning of the junior year. This is done in consultation with a department or BGS academic advisor.
Students in Bachelor of Arts (A.B.) or Bachelor of Science (B.S.) programs are expected to meet with a department advisor and formally declare their major by the end of their sophomore year. Students must also have their department advisors submit a Major Release Form when they are planning to graduate. Department advisors are, most often, faculty or staff members from LSA departments who help students shape and focus their academic goals. They review students' progress in the major, discuss how to apply to graduate or professional school, or explore the job skills acquired in the study of a particular discipline. Students meet with Department advisors in their departmental offices.

Students pursuing a Bachelor in General Studies (BGS) degree may consult with general advisors but are urged to make appointments with BGS advisors. BGS advisors are members of the Office of Academic Standards and Academic Opportunities and are housed in the Newnan LSA Academic Advising Center. They are knowledgeable and experienced staff members familiar with College rules, regulations, policies, and curriculum. BGS students must see a BGS advisor when they declare their degree program. All BGS students are encouraged to see their advisors each term to discuss course elections and program planning. It is strongly recommended that

BGS students see a BGS advisor in the term in which they apply for graduation.

## Common Requirements for the A.B., B.S., and B.G.S. Degrees

## Credits and Grade Point Average (GPA)

To qualify for a degree from the College, a student must complete a minimum of 120 credits with a cumulative grade point average (GPA) of 2.0 (C). The overall GPA of courses included in the field of the major (see Policies for the Major below) for an A.B. or B.S. degree or counted toward the 60 credits of upper-level courses required for a B.G.S. degree must be at least 2.0.

## Writing Requirements

## Updated 12/16/2013; revised 3/11/2014, 6/17/2015

LSA requires all of its students to complete the First-Year Writing Requirement and the Upper-Level Writing Requirement with a minimum grade of C- in each course. The Gayle Morris Sweetland Center for Writing administers these writing requirements and approves all First-Year and UpperLevel Writing Requirement courses.

These courses aim to enhance students' critical thinking and writing skills to prepare them for writing in both their undergraduate years and future educational and professional work.

All Writing Requirement courses offered for a particular term can be found in the LSA Course Guide by using the "Skills Req" drop-down menu and selecting "First-Year Writing (FYWR)" or "Upper-Level Writing (ULWR)".

## First-Year Writing Requirement (FYWR)

The goal of the First-Year Writing Requirement is to prepare students to write in diverse academic contexts. As a broad preparation for the range of writing tasks students will encounter at the University of Michigan and beyond, FYWR courses emphasize evidenced, academic writing in a variety of genres and rhetorical situations. A FYWR course is foundational for students to master the kind of analysis and argumentation found in sophisticated academic writing.
The First-Year Writing Requirement should be completed in the first year with a minimum grade of C - and must be satisfied before electing a class to satisfy the Upper-Level Writing Requirement. Advanced Placement (AP) credit does not fulfill the FYWR.

First-Year Writing Requirement courses offered for a particular term can be found in the LSA Course Guide by using the "Skills Req" drop-down menu and selecting "First-Year Writing (FYWR)".

Transfer students who have completed writing courses at another college or university may be able to use those courses to satisfy the First-Year Writing Requirement. The list of currently approved and non-approved courses is available at:
www.Isa.umich.edu/sweetland/writingrequirements/firstyearwritingrequir ement/transfercourses.

Students who seek a more individualized and gradual introduction to college writing may choose to take WRITING 100: Transition to College Writing and/or WRITING 120: College Writing for Multilingual Writers offered by the Sweetland Center for Writing before a First-Year Writing Requirement course.

WRITING 100 is a 3-credit ungraded course designed for students who:

- learn best with one-to-one instructor support;
- seek more experience drafting and revising academic essays;


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- prefer a more gradual introduction to writing longer academic essays on a variety of topics; and/or
- would benefit from an additional term to gain confidence in their writing and reading skills at the college level.

WRITING 120 is a 3-credit graded course designed for students who:

- feel most comfortable with academic writing in a language other than English and/or
- want an opportunity to work closely with an instructor to become better prepared for writing in English.


## Writing Placement

To help students choose their first writing course at the University, the Sweetland Center for Writing provides the First-Year and Transfer Directed Self-Placements for Writing. Neither Directed Self-Placement (DSP) is a test. Rather, each DSP is designed to give students insight into the kind of writing expected of undergraduates at the University of Michigan, in order to help them judge their own readiness for and comfort with college-level writing. The specific DSP students must complete depends upon whether they have already met the First-Year Writing Requirement with a transferred course.

## Upper-Level Writing Requirement (ULWR)

The goal of the Upper-Level Writing Requirement is to teach students to recognize and practice the range of writing activities and forms typical of academic and professional contexts.

Students must satisfy the First-Year Writing Requirement before electing one of the courses approved to satisfy the ULWR. A minimum course grade of $C$ - is required in order to satisfy the ULWR.

Overall ULWR learning goals for students are as follows:

- build on skills and strategies developed in first-year writing courses;
- produce complex, analytical evidence-based arguments that address specific audiences;
- refine their ability to write effectively both within and beyond specific disciplines;
- use feedback to improve their writing through revision; and
- demonstrate familiarity with the genres and conventions characteristic of effective writing.

Over the course of the term, students will complete several writing assignments that are related to course content and intended to help students practice the rhetoric of their specific discipline. Possible assignments may include journals, research papers, critical analyses, and/or lab reports. Students will receive feedback on their writing from their ULWR instructor and are expected to revise much of their work throughout the term.

Upper-Level Writing Requirement courses offered for a particular term can be found in the LSA Course Guide by using the "Skills Req" drop-down menu and selecting "Upper-Level Writing (ULWR)". A course approved to meet the requirement one term is not necessarily approved to meet the requirement in subsequent terms.

## Quantitative Reasoning

The goal of the Quantitative Reasoning requirement is to ensure that every graduate of the College achieves a certain level of proficiency in using and analyzing quantitative information.

Quantitative Reasoning is the methodology used to analyze quantitative information to make decisions, judgments, and predictions. It involves defining a problem by means of numerical or geometrical representations of real-world phenomena, determining how to solve it, deducing consequences, formulating alternatives, and predicting outcomes. QR courses may come from a wide range of disciplines representing the natural and social sciences.

Students may fulfill this requirement by:

- passing one course of three of more credits designated for full QR credit (QR/1); or
- passing two courses (at least one of which must be of three or more credits) designated for half $Q R$ credit ( $Q R / 2$ ).

Advanced Placement (AP) credit may not be used to meet the Quantitative Reasoning requirement, however, A-level or IB credit may be used to meet the QR requirement.

Courses transferred from another college or university do not generally satisfy $Q R$, except in the following circumstances.

1. Students who transfer in all of the required prerequisites courses for science, math, or computer science majors, as so designated by the major advisor.
2. Students who receive transfer credit of at least three credits for PHYSICS 125, 126, 140, or 240 or any class that transfers as STATS 250 or Statistics Departmental.

Courses used to satisfy the QR requirement also may satisfy other College requirements.

## Race \& Ethnicity

At some point before graduation, students must receive credit for one course of at least three credits from a list of Race \& Ethnicity courses published each term on the LSA website:
www.Isa.umich.edu
These courses will address issues arising from racial or ethnic intolerance and will meet the following criteria:

1. Required content. All courses satisfying the requirement must provide discussion concerning:
(a). the meaning of race, ethnicity, and racism;
(b). racial and ethnic intolerance and resulting inequality as it occurs in the United States or elsewhere;
(c). comparisons of discrimination based on race, ethnicity, religion, social class, or gender.
2. Required focus. Every course satisfying the requirement must devote substantial, but not necessarily exclusive, attention to the required content. Although it is hoped that many of these courses will focus on the United States, it is not required that they do so. Courses that deal with these issues in other societies, or that study them comparatively, may also meet the requirement.

Credits transferred from another college or university do not meet the requirement except by successful petition to the Academic Standards Board.

Credits used to satisfy the R\&E requirement also may be used to satisfy other college requirements.

## Non-LSA Course Work

Students in the College of Literature, Science, and the Arts must complete a program of study consisting of courses primarily from LSA or equivalent transfer credit.

Undergraduate LSA courses are listed in the LSA Undergraduate Course Catalog. Courses offered by other academic units (e.g., Stephen M. Ross School of Business, Education, Engineering) of the University of Michigan (Ann Arbor) and not listed in the LSA Undergraduate Course Catalog are defined as non-LSA courses

Non-LSA course work earns credit toward a degree and honor points according to the following policies:

1. Candidates for an A.B., B.S., or B.G.S. degree must complete a minimum 100 credits of LSA courses, allowing 20 credits of non-LSA course work in the minimum 120 required for the degree. Non-LSA credits in excess of 20 will be included in the calculation of a student's GPA, but will not be counted toward the 120 credits needed for a Bachelor's degree in LSA.
2. Courses cross-listed between LSA and another school or college of the University of Michigan (Ann Arbor) count toward the required number of LSA credits.
3. School of Kinesiology courses cross-listed with an LSA SUBJECT count for degree credit as LSA courses.

- Kinesiology (KINESLGY) 505
- Sport Management (SM) 421

All other School of Kinesiology courses are recorded as "not for credit" for LSA students except for the following courses for which LSA students may receive non-LSA degree credits:

- Athletic Training (AT) 220/221, 375
- Health and Fitness (HF): 220/221, 240, 241, 331, 333, 425, 434, 437, 446
- Kinesiology (KINESLGY) 302, 421, 422, 423, 424, 425, 427, 435, 437, 438, 441, 442, 443, 444, 446, 448, 450, 471, 474, 513, 533, 542, 545
- Kinesiology Study (KINSTUDY): none
- Movement Science (MOVESCI) 110, 219, 230, 231, 240, 241, 250, 280, 320, 330, 340, 361, 421, 422, 423, 424, 425, 426, 427, 435, 437, 438, 441, 442, 443,446, 448, 450, 471, 474,
- Physical Education (PHYSED) 255, 336, 444
- Sport Management (SM) 101 (No credit for LSA students with junior or senior standing), 111, 203, 217, 249, 331, 332, 333, 341, 342, 346, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 444, 446
- U-Move (UMOVE): none
- other SUBJECTs in the School of Kinesiology: none

4. University of Michigan School of Music, Theatre \& Dance ensemble courses yield non-LSA degree credit but no honor points (except for those cross-listed with LSA: ENS 405, 406, 407).
5. Transfer credit for Speech and Journalism courses are counted as nonLSA.
6. The College does not grant degree credit for any courses offered through the Military Officer Education Program except for those courses cross-listed in other academic units.

## Requirements Particular to the B.G.S. Degree

Not open to Honors students
The Bachelor in General Studies degree requires that at least 60 of the 120 credits must be upper-level (numbered 300 or above). Below are specific policies regarding the 60 upper-level credits.

1. No more than 20 credits of upper-level courses may be counted from one department unless a department has multiple SUBJECTs.
2. If a department has several SUBJECTs, a B.G.S. student may elect up to 20 credits of upper-level credits from each SUBJECT.
3. No more than 60 credits may be elected in all SUBJECTs of a department.
4. At least 40 of the required 60 upper-level credits must be in LSA courses.
5. There is no expectation that 20 credits must be elected in any one SUBJECT.
6. More than 20 upper-level credits from one SUBJECT may be incorporated in the degree total of 120 credits as long as no more than 20 of these are counted in the 60 upper-level total.
7. A student must earn an overall GPA of at least 2.0 in the courses used to meet the requirement of 60 upper-level credits.

Students in the Residential College may pursue a BGS. RC students electing the BGS degree must include in their academic plan the completion of the RC arts practicum, the live-in requirement, the RC language requirement and the four-RC-course requirement. RC students should consult advisors in the Residential College to plan their BGS degree.

The BGS degree is not open to students enrolled in the Honors Program.

## Requirements Particular to the A.B., B.S., and B.S.Chem Degrees

By the end of the sophomore year, students should have met the language requirement, made substantial progress toward completing an area distribution plan, and completed prerequisites for a major.

## The Language Requirement

LSA's language requirement seeks to prepare students for a world that has been profoundly transformed by the forces of globalization. Language shapes both how we understand and how we negotiate our world; learning a second language provides both a deep awareness of differences (linguistic and cultural) and a means to bridge them. Informed respect for other cultures, tolerance, cosmopolitanism, self-awareness, and flexibility are the hallmarks of a liberal education, and the study of foreign languages fosters precisely these capacities.

A student whose first language is not English and who attended a high school where English was not the language of instruction is considered to have met the requirement.

Fourth-term proficiency in a language other than English is required and may be met by any one of:

1. Certified proficiency on a University of Michigan reading and/or listening test. Students with previous experience in the language they plan to use to meet the language requirement must take a language placement test. A student may not elect for credit a language course below this placement level without departmental permission.
2. Credit for a University of Michigan fourth-term language course listed below with a grade of C - or better.

American Sign Language (RCASL 202)
Arabic
Classical (AAPTIS 222)
Modern Standard (ARABIC 202 or 203)
Armenian
Western (ARMENIAN 202)
Bosnian, Croatian, and Serbian (BCS 232)
Chinese (ASIANLAN 202, 203, or 204)
Czech (CZECH 242)
Dutch (DUTCH 232)
Filipino (ASIANLAN 212)
French (FRENCH 230 or 232, or RCLANG 290)
German (GERMAN 230 or 232, or RCLANG 291)
Greek
Classical (GREEK 301 and 302)
Modern (MODGREEK 202)
Hebrew
Classical (NESLANG 202)
Modern (HEBREW 202 or 203)
Hindi (ASIANLAN 216)
Indonesian (ASIANLAN 222)
Italian (ITALIAN 232 or 230)
Japanese (ASIANLAN 226 or 227 or 229, or RCLANG 296)
Korean (ASIANLAN 236 or 238)
Latin (LATIN 232 or 233 or 295, or RCLANG 295)
Nahuatl (LACS 464)
Ojibwe (AMCULT 323)
Persian (PERSIAN 202)
Polish (POLISH 222)
Portuguese (PORTUG 232 or 230)
Punjabi (ASIANLAN 246)
Quechua (LACS 474)
Russian (RUSSIAN 202 or 203 or 223 or 225, or RCLANG 293)

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Sanskrit (ASIANLAN 252)
Spanish (SPANISH 230 or 232, or RCLANG 294)
Swahili (AAS 216)
Swedish (SCAND 234)
Thai (ASIANLAN 262)
Tibetan
    Modern (ASIANLAN 266)
Turkish (TURKISH 202)
Ukrainian (UKR 252 or 203)
Urdu (ASIANLAN 272)
Vietnamese (ASIANLAN 276)
Yiddish (YIDDISH 202 or JUDAIC 202 or GERMAN 228)
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Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Academic Standards Board.
3. Credit for a University of Michigan language course which presumes a fourth-term proficiency in a language (except for: 305 and/or 306 in FRENCH, GERMAN, ITALIAN, LATIN, MODGREEK, and SCAND; 405 and/or 406 in GERMAN and SCAND; SPANISH 278/AMCULT 224, and SPANISH 308).

Students must earn a grade of $C$ - or better in the prerequisite language course to proceed to the subsequent course. Any exception to this rule must be granted by a designated faculty representative in the department.

## The final course in an elementary language sequence used to satisfy the Language Requirement must be elected on a graded basis.

The language requirement cannot be satisfied by out-of-residence credit which is elected after the student has begun degree enrollment in LSA unless the appropriate language department has approved that plan in advance.

No more than 60 credits in one language (other than English) may be counted in the 120 required for a degree. However, the 60 credit limit on courses elected in one major may be exceeded when the excess credits have been used to meet the language requirement.

## Area Distribution

By means of this requirement the College seeks to instill an understanding and an appreciation of the major areas of learning. Students are not expected to master all areas in detail, but should develop a coherent view of essential concepts, structures, and intellectual methods that typify these disciplines.

Courses offered by the academic departments and programs of the College are divided into five area categories:

- the natural sciences
- the social sciences
- the humanities
- mathematics and symbolic analysis
- creative expression

Each of these divisions represents a different perspective on human knowledge and learning; some departments and programs overlap these divisions while others may stand outside them.

## Definitions

Natural Science (NS)
Natural Science courses focus on the understanding of our natural world through application of the scientific method, which emphasizes observation, experimentation, formation of testable hypotheses about natural phenomena, and testing of those hypotheses.

## Social Science (SS)

Social science courses focus on the study of the social behavior of individuals, groups, societies, nations, and states. Social scientists often use qualitative methods, such as ethnography, oral history, and descriptive analysis of archival materials and artifacts. They also use
quantitative tools grounded in the scientific method to collect and analyze data, and form testable hypotheses about social phenomena.

Humanities (HU)
Humanities courses focus on the human condition as expressed, for example, in literature, religion, philosophy, and the visual and performing arts. Its methods are analytical, critical, and speculative, and can often be contrasted with the quantitative and qualitative methods employed in the social sciences.

## Mathematical and Symbolic Analysis (MSA)

Mathematical and Symbolic Analysis courses focus primarily on the mathematical and statistical tools used to support the study of the natural and social sciences. Rather than mathematical manipulation or computation, these courses focus on the methodology used to analyze quantitative information to make decisions, judgments and predictions. This involves defining a problem by means of numerical or geometrical representations of real-world phenomena, determining how to solve it, deducing consequences, formulating alternatives, and predicting outcomes. In addition to mathematics and statistics, MSA courses are taught in a variety of subjects, including astronomy, biology, chemistry, economics, the environment, geological sciences, philosophy, physics, and sociology.

Creative Expression (CE)
Creative Expression courses entail hands-on activities that allow students to express their creativity through a wide range of arts. This differs from courses in the Humanities ( HU ) that are taught at a more theoretical or abstract level. For example, HU music courses focus on theory without making sounds or practicing music. CE courses teach students how to apply the theory not only on paper but through playing an instrument, creating sound, composing music, or arranging music. CE courses may address many different mediums, including the performing arts, fine arts, plastic and visual arts, architecture, ceramics, metalworking, paper and textiles, woodworking, and glass.

## Interdisciplinary (ID)

Interdisciplinary courses combine in roughly equal measure the approaches within two or three of the primary distributions (HU, NS, and SS) in order to examine the differences and similarities between disciplines and explore alternative ways of discovering and organizing knowledge. Interdisciplinary work is primarily concerned with crossings and connections between areas of knowledge, inquiry, and method. ID courses emphasize critical thinking, team-based intellectual work, and the analytic skills characteristic of each discipline.

## Area Distribution Requirement

All candidates for the Bachelor of Arts and Bachelor of Science degrees from the College must fulfill the 30-credit Distribution Requirement.

This broad intellectual experience, which forms an essential part of a liberal arts education, is to be achieved in the following way:

1. Students must complete 7 credits in each of the following three areas: Natural Science (NS), Social Science (SS), and Humanities (HU), for a total of 21 credits.
2. Students must also complete 3 additional credits in three of the following five areas: (NS), (SS), (HU), Mathematical and Symbolic Analysis (MSA), and Creative Expression (CE), for a total of 9 credits. Credits in courses designated Interdisciplinary (ID) may be used to satisfy up to 9 credits of this part of the requirement.

## General Policies for Area Distribution Plans

An area distribution plan may include:

1. Prerequisites to a major elected outside the department of the major
2. Courses elected pass/fail, credit/no credit, or by any other non-graded pattern
3. Courses elected to satisfy one of two majors by students who elect a double major (see "Double Major" below in this chapter).
4. Transfer credit from other schools and colleges of the University of Michigan and from other academic institutions
5. A course elected outside the department of the major or requirements for the major used to meet the Upper-Level Writing Requirement, the Race \& Ethnicity Requirement, or the Quantitative Reasoning Requirement
6. Courses in non-LSA units offering courses with Creative Expression designation (Credits are counted as non-LSA):
Penny W. Stamps School of Art \& Design Art \& Design (ARTDES)
7. Digital Studio I
8. Drawing for Non-Majors
9. Printmaking for Non-Majors
10. Painting for Non-Majors
11. Digital Photography for Non-Majors
12. Watercolor for Non-Majors
13. Life Drawing for Non-Majors
14. Graphic Imaging for Non-Majors
15. Metals for Non-Majors
16. Animation for Non-Majors
17. Sculpture for Non-Majors
18. Clay for Non-Majors
19. Wood for Non-Majors
20. Tools, Materials \& Processes Studio III: Time
21. Concept Form and Context Studio II
22. Concept Form and Context Studio III

University Arts (UARTS)
150. Introduction to Creative Process (effective Winter 2015)

Alfred A. Taubman College of Architecture + Urban Planning Architecture (ARCH)
201. Basic Drawing
202. Graphic Communication
218. Visual Studies

## School of Music, Theatre \& Dance Performance - Piano (PIANO)

110. Performance
111. Performance

Dance (DANCE)
100. Introduction to Dance
261. Congolese Dance 1
262. Congolese Dance 1

Ensemble (ENS): All Courses 100-399
Courses (100-399) in Music Performance SUBJECTS other than Piano Performance, may also be used for Creative Expression, but enrollment is restricted to students of advanced ability.

An area distribution plan may not include:

1. Any course from the department of the major
2. Required cognates in a major
3. Courses at the 400-level and above.
4. Experiential courses, Independent Study, and University (UC) minicourses
5. Advanced Placement credits.

## Major

The requirement for a major provides the opportunity to acquire in-depth knowledge in one academic discipline while developing and refining skills that will serve students in a wide array of academic and non-academic endeavors.

All majors and minors are listed on the official transcript once the student graduates and the degree is posted. However, majors and minors are not listed on the diploma unless a student receives Honors in a major through the Honors Program.

1. Students normally declare a major during the second term of the sophomore year.
2. To declare a major, a student should contact the appropriate department and make an appointment with a department advisor.
3. After developing a plan for the major with the student, the department advisor has the major entered on the student's record.
4. Requirements for majors are those applicable at the time the student declares the major.
5. A student may change the plan for the major with the approval of the department advisor.
6. Students may change majors after meeting with a department advisor in a different department.

## Policies for Majors

## Effective Winter 2016; updated 3/1/2016

1. Each A.B. or B.S. student must develop a major plan in consultation with a major advisor, who must also approve it.
2. Course requirements for the various majors range from 24 to 48 credits at the 200-level and above.
3. No more than 60 credits in a major (including courses in one department and the required cognates) may be counted toward the 120 for the degree. When an academic department has two or more SUBJECTs (e.g., Anthropology, Romance Languages and Literatures), a student may count a total of 60 credits from that department, not from each SUBJECT.
4. No more than 60 credits in one language (other than English) may be counted in the 120 required for a degree. However, the 60 credit limit on courses elected in one major may be exceeded when the excess credits have been used to meet the language requirement.
5. Students electing an area, interdepartmental, or special major may count no more than 60 credits in any one department.
6. Students may not elect courses in a major, including required cognates, using the Pass/Fail grading option.
7. A department or program may include Experiential or Directed Reading/Independent Study courses that are graded on a Credit/No Credit basis in its major, but all other courses in the major must be taken for a grade.
8. A maximum of one course may be shared between the requirements of a minor and a major.
9. No course may be shared between the requirements a major and a supplemental studies program.
10. No course from the department of a major or a required course in a major may be part of a distribution plan (see, however, "Double Concentration" below).
11. A student must earn an overall GPA of at least 2.0 in courses taken in the major. This includes all courses taken in the department of the major (prerequisites, required courses, and electives) and any required cognates. Exceptions for specific majors are listed in the Academics and Requirements section of the LSA website.
12. Courses that are part of the student's major may also meet the UpperLevel Writing Requirement, the Race \& Ethnicity Requirement, or the Quantitative Reasoning Requirement.
13. Effective in Fall 2004, students graduating with an Honors major are required to earn an overall GPA of 3.4. Individual departments may have higher GPA requirements for courses in their majors. Check Honors major guidelines in individual departments listed in the Academics and Requirements section of the LSA website.
14. Test credits may not be used to meet the requirements of a major, but may be used to meet prerequisites. Departmental exceptions to this policy may be granted by the LSA Curriculum Committee.

## Majors

Afroamerican and African Studies (AAS)
American Culture
Anthropology
Arts and Ideas in the Humanities
Asian Studies
Astronomy and Astrophysics
Astronomy, Interdisciplinary
Biochemistry
Biology

| Biology, General |
| :--- |
| Biomolecular Science |
| Biophysics |
| Biopsychology, Cognition, and Neuroscience (BCN) |
| Cell and Molecular Biology (CMB) |
| Cell and Molecular Biology and Biomedical Engineering |
| Chemical Science |
| Chemical Sciences (ICS), Interdisciplinary |
| Classical Archaeology |
| Classical Civilization |
| Classical Languages and Literatures |
| Cognitive Science |
| Communication Studies |
| Comparative Literature |
| Computer Science |
| Creative Writing and Literature |
| Data Science |
| Drama |
| Earth and Environmental Sciences |
| Ecology and Evolutionary Biology (EEB) |
| Economics |
| English |
| Environment |
| Evolutionary Anthropology |
| French and Francophone Studies |
| Gender and Health |
| German |
| Greek (Ancient) Language and Literature |
| Greek (Modern) Language and Culture |
| History |
| History of Art |
| Individual Major Program (IMP) |
| Informatics |
| International Studies |
| Italian |
| Judaic Studies |
| Latin Language and Literature |
| Latin American and Caribbean Studies (LACS) |
| Latina/o or Hispanic-American Studies |
| Linguistics |
| Mathematics |
| Microbiology |
| Middle Eastern and North African Studies (MENAS) |
| Music |
| Near Eastern Studies (NES) |
| Neuroscience |
| Organizational Studies (OS) |
| Philosophy |
| Philosophy, Politics, and Economics (PPE) |
| Physics |
| Physics, Interdisciplinary |
| Plant Biology |
| Polish |
| Political Science |
| Psychology |
| Romance Languages and Literatures |
| Russian |
| Russian, East European, and Eurasian Studies (REEES) |
| Screen Arts and Cultures (SAC) |
| Social Theory and Practice |
| Sociology |
| Spanish |
| Statastics |
| Women's Studies |

## Individual Major Program

Students with academic interests outside existing majors may propose their own field of major and, on approval, elect the Individual Major Program.

## Honors Plan

All departments and interdisciplinary programs offer Honors versions of their majors, which are coded as Honors Plans. At the beginning of the third year, or when it is appropriate in the department's process, students may apply to a departmental Honors major. Students who meet departmental criteria are eligible to apply whether or not they have previously been in the Honors Program. Admission of upperclass students is determined by LSA departments and programs. Students will be required to have a cumulative GPA of 3.4 to graduate with Honors; they may embark on an Honors major before they have reached that threshold, but the minimum should be attainable by the time they graduate. Students who are accepted into an Honors major program automatically become LSA Honors students.

Honors majors are described under the relevant departmental listings. Candidates for graduation with Honors must perform very well in courses and also demonstrate ability in original thesis work, and, in some majors, pass a comprehensive examination. Effective in Fall 2004, students graduating with an Honors plan are required to earn an overall GPA of 3.4. Individual departments may have higher GPA requirements for courses in the major. Check Honors plan guidelines in individual departments.

Many departments require their Honors majors to register for special seminars and independent study research courses. During the senior year, Honors majors carry out research and write a thesis under the direction of a faculty mentor. With only a few exceptions, graduation with Honors requires the completion of a Senior Honors thesis.

After an evaluation of the thesis and the overall academic record, Honors department advisors recommend that students graduate with an Honors degree.

The department will then send one of four possible recommendations to the Honors Office: "No Honors," "Honors," "High Honors," or "Highest Honors." No Honors is given for work that does not meet departmental standards, and for students with GPAs under 3.4 ("No Honors" is not noted on the transcript or diploma). The other three will be posted on the final transcript and diploma. Honors majors are described under the relevant departmental listings under Majors \& Minors.

Students may also petition the Honors Program for approval of an Honors Individual Major Program (HIMP). Information about the Honors Individual Major Program is available in 1330 Mason Hall.

In some rare circumstances, departments may ask the Honors Academic Board to graduate with Honors a student whose cumulative GPA is below the required threshold at the time of graduation. The request should be made by the faculty advisors who knows the student's work and history best, but must be endorsed by the Director of Undergraduate Studies and the Chair of the Department. The letter(s) for this request should explain the student's circumstances, describe the Honors work, and provide a justification for making an exception to the GPA requirement.

## Double Major

A student electing a double major must meet all requirements for both majors. Courses, including cognates, elected as part of one major may be used, when appropriate, to satisfy the requirements of the second major. Courses from one of the majors may be used toward distribution. Each major must be developed in consultation with and approved by a department advisor.

# Requirements Particular to the B.S.Chem. Degree 

May be elected as a special degree program
Updated 11/12/2013 - Winter 2014
Fall 2015: 11/9/2015
Exclusions: Students who elect B.S.Chem may not elect the following major: Interdisciplinary Chemical Sciences or Chemical Science. They may also not elect any of the Chemistry minors.

The B.S. in Chemistry is the most rigorous degree in pure chemistry offered by the Chemistry department, and should be the degree of choice for students who plan to pursue Ph.D. studies in one of the traditional subareas of the field (Organic Chemistry, Inorganic Chemistry, Physical Chemistry, and Analytical Chemistry) or students who plan to seek careers in the Chemical Industry. Students are required to take several lecture and lab courses in all of these core areas, and are also required to complete 4 credits (two semesters) of undergraduate research.

## Chemistry Degree Credit and GPA Requirements

124 Credits. A grade point average of at least 2.0 is required; this includes chemistry courses, mathematics and physics prerequisites and advanced electives which are part of the B.S.Chem. degree.

## Special Policies

Prospective majors are advised that further study in chemistry requires adequate performance in early chemistry courses (preferably B- or better) as well as in the mathematics and physics prerequisites.

Special Departmental Policies (effective Fall 2015): The department strongly recommends that a student earn a grade of at least C-in all CHEM courses and mathematics, physics, and biology courses that are prerequisite for subsequent elections. A major program grade point average of at least 2.0 is required; this includes chemistry courses, mathematics, physics, and biology prerequisites, and advanced electives that are part of a major plan. Prerequisites must be taken for a grade. Students must request any change in a chemistry course grade within the first fifteen University Business days of the first full term following the term in which the disputed grade was issued.

The Mathematics department requires that all prerequisite courses must be satisfied with a grade of C- or above. Students with lower grades in prerequisite courses must receive special permission of the instructor to enroll in subsequent courses.

## Prerequisites to the Program

- CHEM courses through 215, 216, CHEM 241/242, and CHEM 260 or 370
- PHYSICS [135/136 or 140/141] and [235/236 or 240/241]
- MATH 115 (or 120 ) and MATH 116 (or 121)
- CHEM 262 (or MATH 215, and MATH 216 or 217)


## Prerequisites must be taken for a grade.

PHYSICS 240 or 235 and MATH 215 are prerequisites for CHEM 461, and students should, wherever possible, complete both of these before the junior year.

## Course Requirements for the B.S.Chem. Degree

CHEM 302 or $303,402,447,461,462,463,482,483$ and four credits of CHEM 399 taken over at least two terms, as well as one advanced lecture course in chemistry.

## Honors Plan in Chemistry

The B.S. Chem. degree is the basis of the Honors degree in Chemistry. Maintenance of a satisfactory GPA (3.4) in the required courses for the degree program, including prerequisites, and satisfactory completion of an Honors thesis (CHEM 499) based on the research done in CHEM 399 are required for Honors.

## Concurrent Undergraduate Degrees <br> (B.S.Chem./BSE in Chemical Engineering)

There is a five-year joint degree program with the College of Engineering which leads to a B.S. Chem. and a Bachelor of Science in Engineering (Chemical Engineering).

## Minors

Students in the College may elect one or more minor offered by departments and programs within the College or by the other academic units on campus. Electing to earn a minor is optional, and there is no limit on the number of minors a student may elect. For more information, see the Academics and Requirements section of the LSA website.

A minor must require no less than 15 credits of course work, show structure and coherence, and contain some upper-level courses. At least 10 out of the 15 credits must be taken in-residence. Students who declare and complete an approved minor will receive a notation on their student transcript but not on their diploma.

## Policies for Minors

Effective Winter 2016; updated 3/1/2016 and 3/29/2016

1. Each A.B. or B.S. student who wishes to complete an approved minor must develop a plan for the minor in consultation with a department or program advisor, who must also approve it.
2. After developing a plan for its minor with the student, the program or department advisor has the minor entered on the student's record.
3. The minor is not an option available to students earning the B.G.S. degree.
4. An individually designed minor is not allowed.
5. Students may not elect courses included in a minor by the Pass/Fail grading option.
6. A department or program may include Experiential or Directed Reading/Independent Study courses that are graded on a Credit/No Credit basis in a minor, but all other courses in the minor must be taken for a grade.
7. No course may be shared between the requirements of more than one minor.
8. No course may be shared between the requirements of a minor and a supplemental studies program.
9. A maximum of one course may be shared between the requirements of a minor and a major.
10. If the minor has prerequisites, courses used as prerequisites to a major may also count as prerequisites to the minor.
11. Test credits may not be used to meet the requirements of a minor, but may be used to meet prerequisites.
12. Courses elected to meet the requirements of a minor also may be part of the student's area distribution plan.
13. A student must earn an overall GPA of at least 2.0 in the minor, including any departmental prerequisites necessary for the completion of the minor.
14. Courses that are part of a student's minor may also meet the Language Requirement, the Upper-Level Writing Requirement, the Race \& Ethnicity Requirement, or the Quantitative Reasoning Requirement.

## Minors

Minors, along with their requirements and other pertinent information, are described in detail on the LSA website. Consult the individual department listing (as shown in parentheses) for a description of the minor.

Afroamerican and African Studies (Afroamerican and African Studies) American Culture (American Culture)
Anthropology (Anthropology)
Applied Statistics (Statistics)
Arab and Muslim American Studies (American Culture)
Asian Languages and Cultures (Asian Languages and Cultures)
Asian Studies (Asian Languages and Cultures)
Asian/Pacific Islander American Studies (American Culture)

Astronomy and Astrophysics (Astronomy)
Astronomy, Interdisciplinary (Astronomy)
Biochemistry (Chemistry)
Biological Anthropology (Anthropology)
Biology (Program in Biology)
Biophysics (Program in Biophysics)
Bosnian/Croatian/Serbian Literature and Culture (Slavic Languages and
Literatures)
Central Eurasian Studies (Center for Russian, East European, and
Eurasian Studies)
Chemical Measurement Science (Chemistry)
Chemical Physics (Chemistry)
Chemistry (Chemistry)
Classical Archaeology (Classical Studies)
Classical Civilization (Classical Studies)
Complex Systems (Center for the Study of Complex Systems)
Creative Writing (English Language and Literature)
Crime and Justice (Residential College)
Czech Language, Literature, and Culture (Slavic Languages and Literatures)
Digital Studies (American Culture)
Drama: Text-to-Performance (Residential College)
Early Christian Studies (Near Eastern Studies and Classical Studies)
Earth Sciences (Earth and Environmental Sciences)
East European Studies (Center for Russian, East European, and Eurasian Studies)
Eastern Europe, Cultures \& Literatures of (Slavic Languages and Literatures)
Ecology and Evolutionary Biology (Ecology and Evolutionary Biology)
Economics (Economics)
Energy Science and Policy (Program in the Environment)
Environment (Program in the Environment)
Environmental Geology (Earth and Environmental Sciences)
Epistemology and Philosophy of Science (Philosophy)
Food and the Environment (Program in the Environment)
French and Francophone Studies (Romance Languages and Literatures)
Gender and Health (Women's Studies)
Gender, Race, and Nation (Women's Studies)
General Philosophy (Philosophy)
Geology (Earth and Environmental Sciences)
German Studies (Germanic Languages and Literatures)
Global History (History)
Global Media Studies (Screen Arts and Cultures)
Greek (Ancient) Language and Literature (Classical Studies)
Greek (Modern) Language and Culture (Classical Studies)
History (History)
History of Art (History of Art)
History of Law and Policy (History)
History of Medicine and Health (History)
History of Philosophy (Philosophy)
Intergroup Relations Education (Program on Intergroup Relations)
International Studies (Program in International and Comparative Studies)
Islamic Studies (Center for Middle Eastern and North African Studies) Italian (Romance Languages and Literatures)
Judaic Studies (Frankel Center for Judaic Studies)
Latin American and Caribbean Studies (Center for Latin American and Caribbean Studies)
Latin Language and Literature (Classical Studies)
Latina/o Studies (American Culture)
Law, Justice, and Social Change (Sociology)
Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) and Sexuality
Studies (Women's Studies)
Linguistics (Linguistics)
Mathematics (Mathematics)
Medical Anthropology (Anthropology)
Medieval and Early Modern Studies (Medieval and Early Modern Studies)
Mind and Meaning (Philosophy)
Modern European Studies (Center for European Studies)

Modern Middle Eastern and North African Studies (Center for Middle Eastern and North African Studies)
Moral and Political Philosophy (Philosophy)
Museum Studies (Museum Studies)
Native American Studies (American Culture)
Near Eastern Languages and Cultures (Near Eastern Studies)
Oceanography (Earth and Environmental Sciences)
Paleontology (Earth and Environmental Sciences)
Peace and Social Justice (Residential College)
Physics (Physics)
Plant Biology (Program in Biology)
Polish Language, Literature, and Culture (Slavic Languages and Literatures)
Political Science (Political Science)
Polymer Chemistry (Chemistry)
Portuguese (Romance Languages and Literatures)
Religion (History)
Russian Language, Literature, and Culture (Slavic Languages and Literatures)
Russian Studies (Center for Russian, East European, and Eurasian Studies)
Scandinavian Studies (Germanic Languages and Literatures)
Science, Technology, and Society (Science, Technology, and Society Program)
Spanish Language, Literature, and Culture (Romance Languages and Literatures)
Statistics (Statistics)
Sustainability (Program in the Environment)
Translation Studies (Comparative Literature)
Ukrainian Language, Literature, and Culture (Slavic Languages and Literatures)
Urban Studies (Residential College)
Water and the Environment (Program in the Environment)
Writing (Sweetland Center for Writing)
Yiddish Studies (Frankel Center for Judaic Studies)
Minors offered by other Schools and Colleges open to LSA students
Art and Design (Stamps School of Art \& Design)
Business (Ross School of Business)
Climate and Space Sciences and Engineering (Climate and Space
Sciences and Engineering)
Community Action and Social Change (School of Social Work)
Computer Science (Electrical Engineering and Computer Science)
Design and Production (Theatre and Drama)
Electrical Engineering (Electrical Engineering and Computer Science)
Entrepreneurship (Innovate Blue)
Global Theatre and Ethnic Studies (Theatre and Drama)
Multidisciplinary Design (Multidisciplinary Design Program)
Music (University of Michigan School of Music, Theatre \& Dance)
Performing Arts Management (Theatre and Drama)

## Supplemental Studies

The College does not sanction supplemental studies offered by LSA departments. On the other hand, the College will consider supplemental studies offered by non-LSA departments or programs. Undergraduate supplemental studies can provide opportunities for LSA students to develop additional experience and skills to complement their major(s) or minor(s).

A supplemental studies must require no less than 9 credits of course work, show structure and coherence, and contain some upper-level courses

Each A.B., B.S., or B.G.S. student may complete one or more supplemental studies programs approved by the College. Electing to earn a supplemental studies is optional, and there is no limit on the number of supplemental studies a student may elect. Students who declare and complete an approved supplemental studies will receive a notation on their student transcript but not on their diploma.

## Policies for Supplemental Studies

## Effective Winter 2014; updated 12/10/2013

1. Each A.B., B.S., or B.G.S. student may complete one or more supplemental studies program.
2. Each student who wishes to complete an supplemental studies program must develop a plan in consultation with a program advisor.
3. After developing a plan with the student, the program or department advisor has the supplemental studies program entered on the student's record.
4. An individually designed supplemental studies program is not allowed.
5. Students may not elect courses included in a supplemental studies program using the Pass/Fail grading option.
6. A department or program may include Experiential or Directed Reading/Independent Study courses that are graded on a Credit / No Credit (C/NC) basis in a supplemental studies program, but all other courses in the supplemental studies program must be taken for a grade.
7. No course may be shared between the requirements of two supplemental studies program, between a major and a supplemental studies program, or between a minor and a supplemental studies program.
8. One course may be shared between the B.G.S. upper level credits requirement and a supplemental studies program.
9. Advanced Placement credits may not be used to meet the requirements of a supplemental studies program.
10. A student must earn an overall GPA of at least 2.0 in the required courses in the supplemental studies program.
11. Courses elected to meet the requirements of a supplemental studies program also may be part of the student's area distribution plan.
12. Courses that are part of a supplemental studies program may also meet the Language Requirement, the Upper-Level Writing Requirement, the Race \& Ethnicity Requirement, or the Quantitative Reasoning Requirement.
13. Students may not complete a supplemental studies program after graduation, and a supplemental studies program may not be converted to a minor after graduation.

## List of Supplemental Studies

Supplemental studies, along with their requirements and other pertinent information, are described in detail on the LSA website Consult the individual department listing (as shown in parentheses) for a description of the Supplemental Studies Program.

Entrepreneurship (Innovate Blue)
Sustainability (Graham Environmental Sustainability Institute)

## Special Degrees

Several special degree programs are offered by the joint cooperation of LSA and other colleges or schools within the University. Admission to some of these programs is highly competitive. Because many of these programs require specific courses for admission, it is important for students to
identify program interests early in their undergraduate careers. Although the basic requirements are summarized in this chapter, students should consult academic advisors associated with the various programs.

## Engineering (Joint Program in Liberal Arts and B.S. in Engineering)

This program is designed to enable students to develop a course of study that offers broader academic opportunities than those offered by either college. The program is intended for students who wish to develop a depth of understanding in the technical studies associated with the College of Engineering and in the physical and natural sciences, humanities, and social sciences in the College of Literature, Science, and the Arts. This integration of technical studies with the liberal arts is the primary strength of the program. It is open to students enrolled in Engineering or LSA and leads to concurrent bachelor's degrees from both colleges. It is intended primarily for students who enroll as first-year students in one of the two colleges.

The variety of courses that students may elect in the joint program makes it impractical to list specific requirements. Instead, each student should consult faculty members and academic advisors in each college to develop the best plan of study. Primary responsibility for planning the academic program and continuing contact with academic advisors in the two fields is assumed by the student, who also is responsible for becoming familiar with the academic policies and procedures of both colleges and the academic requirements and courses in both fields of the major as described in the Bulletins of the two colleges.

It is usually possible for students carrying 16 credits a term to meet all requirements in 10 or 11 terms.

## Administrative Regulations

1. Students may initially enroll either in the College of Engineering or the College of Literature, Science, and the Arts.
2. To be qualified for admission to the joint degree program, students are usually expected to have completed 30 credits of courses with an overall grade point average of at least 2.7. Entry of LSA students to some programs in Engineering may require a substantially higher grade point average.
3. Students considering this program should discuss their plans with the program advisor associated with the college in which they are enrolled. Usually this contact should be made early in the sophomore year.
4. Students must complete an application form indicating their program in each college. Applications are available from:

- Newnan LSA Academic Advising Center, 1255 Angell Hall, (734) 764-0332, or
- CoE Registrar's Office, College of Engineering, 145A Chrysler Center, (734) 647-7117.

5. Once admitted to the program, each student continues to register in the college of initial enrollment. That college maintains the primary academic record.
6. Students must consult the academic advisor for each major and secure approval for their class schedule according to the academic policies and procedures of each college.
7. Students must maintain good academic standing in both colleges to continue in the joint degree program.
8. Students in good academic standing who wish to withdraw from the program may complete a degree in either college. Students not in good academic standing are subject to the academic discipline of that college.
9. Upon completion of the requirements of both colleges, students are granted concurrent degrees. By the beginning of the term in which graduation is anticipated, a Diploma Application must be filed with each college, and the department advisor for each major
(specialization) must provide appropriate notification that departmental requirements are satisfied.

## Joint Degree Program Structure

Candidates for the combined Bachelor of Science in Engineering (B.S.E.) and liberal arts degree (A.B., B.S., or B.G.S.) must:

1. complete one of the degree programs in the College of Engineering,
2. complete a minimum of 90 credits of LSA courses,
3. have a cumulative grade point average of at least 2.0.

In addition, candidates for the joint Bachelor of Science in Engineering (B.S.E.) and Bachelor of Science (B.S.) or Bachelor of Arts (A.B.) degree must complete the LSA degree requirements (LSA First-Year Writing requirement, the Upper-Level Writing requirement, the Race \& Ethnicity requirement, the Quantitative Reasoning requirement, the language requirement, an approved area distribution plan), and an approved LSA major. Candidates for the joint Bachelor of Science in Engineering (B.S.E.) and Bachelor in General Studies (B.G.S.) degree must complete the LSA First-Year Writing requirement, the Upper-Level Writing requirement, the Race \& Ethnicity requirement, the Quantitative Reasoning requirement, and a minimum 40 credits of LSA courses 300 -level or above with a GPA of at least 2.0. No more than 15 of these credits may be elected from any one subject.

## Music (Joint Degree Program in Liberal Arts \& Music)

The LSA/Music joint degree programs are intended for students who seek the academic studies associated with the College of LSA in combination with the professional training in performance-based or academic music studies associated with the School of Music, Theatre \& Dance (MT\&D). Students interested in these degree programs typically seek concurrent admission, as freshmen, to both units, and, if successful, their programs of study will lead to bachelor's degrees from both. At least 150 credits are required to earn these joint degrees, and 100 of these must count as LSA credits. It is impractical to list specific requirements because of the variety of courses that may be elected by students, but it is usually possible for students electing 16-18 credits per term to meet all requirements in 11 to 12 terms.

For more information about the LSA/Music joint degree programs, contact the School of Music, Theatre \& Dance Admissions Office at (734) 764-0593 or

## www.music.umich.edu/departments/dual_degrees.htm

## Individualized Joint Degree Programs

A student may be interested in a joint degree program with another school or college even if a joint degree program has not been officially established by the College. Such joint degree programs are planned through the Academic Standards Board. At least 150 credits are required for an individualized joint degree, including at least 100 credits of LSA courses.

A minimum of 30 credits must have been completed on the Ann Arbor campus before a student may apply for an individualized joint degree program, and the cumulative grade point average for work completed on the Ann Arbor campus must be 3.0 or better. Any exception to these requirements must be approved by the Academic Standards Board.

Students who have been admitted to the BBA program in the Stephen M. Ross School of Business may discuss an individualized joint degree program with the Stephen M. Ross School of Business.

## Joint Undergraduate-Graduate Degree Programs

## Architecture (Joint Program in Liberal Arts and M.Arch. in Architecture)

Students enrolled in the College of Literature, Science, and the Arts wishing to consider joint degree programs, in which the M.Arch. degree is awarded by the Taubman College of Architecture + Urban Planning and a second degree is awarded by the College of Literature, Science, and the Arts, are advised to contact the pre-architecture advisor in the Taubman College and the department advisor in LSA.

## The Concurrent Undergraduate-Graduate Studies (CUGS) Program

The Concurrent Undergraduate-Graduate Studies (CUGS) Program enables a few students each year to enroll simultaneously in LSA and the Rackham Graduate School and to apply a maximum of 15 credits toward both an undergraduate degree and a graduate degree. To be considered, a student must have earned at least 90 credits toward an undergraduate degree, must have satisfied the distribution requirements, and must have an overall grade point average of at least 3.7. Admission to CUGS is limited and depends heavily on the student having exhausted the undergraduate resources of his or her department so that graduate study is the appropriate and logical next step in the student's program. The admissions process begins with encouragement from the graduate admissions committee of the department in which the student wishes to do graduate work. The student must then receive the recommendation of the chair of the undergraduate department / program, as well as the Assistant Dean for Undergraduate Education (Office of Student Academic Affairs) for regular LSA students, or one of the Directors of the Honors Program for Honors students, or the Director (Director's representative) in the Residential College for RC students. An admission application is completed and submitted to the Graduate School for approval of both the graduate admission committee and Rackham Associate Dean of Admissions.

## Engineering (Bachelor of Science in Cell and Molecular Biology and Master of Science in Biomedical Engineering)

The Department of Molecular, Cellular, and Developmental Biology in the College of LSA and the Department of Biomedical Engineering in the College of Engineering administer a five-year program awarding a concurrent BS degree in Cell and Molecular Biology from the College of LSA and an MS in Biomedical Engineering from the Rackham Graduate School upon completion of all program requirements. A student will apply to both the Molecular, Cellular, and Developmental Biology and Biomedical Engineering Departments for entrance. A student will be admitted into the program only after completing the first year of the prerequisites for the major (BIOLOGY 172, CHEM 210/211, PHYSICS 135/136 or 140/141, MATH 115 and 116) with a GPA of 3.2 or higher.

Upon acceptance into the program, each student will be assigned two advisors, one in MCDB and one in Biomedical Engineering. Student course selections must be approved by both advisors each term.

A student is typically admitted into the MS phase at the end of the third year when the student achieves senior standing. The student must have completed all prerequisites for the major and be judged by both academic advisors as making adequate progress toward the B.S. At this time, the student must formally apply to the Rackham Graduate School for the MS program in Biomedical Engineering. All students with a 3.2 GPA or higher in the BS major phase will automatically be admitted into the MS phase. Other CMB students who have reached senior standing with a 3.2 GPA or higher and have fulfilled all prerequisites for the major, but did not previously apply or were not admitted in the BS phase, can also apply for admittance into the MS phase. Students with senior standing will have two years to mix undergraduate and graduate courses, simultaneously fulfilling requirements for both the BS and MS degrees. Students will be charged graduate tuition for only one academic year.

## Information (Bachelor of Arts / Bachelor of Science in Linguistics and Master of Science in Information)

The School of Information offers an accelerated program for exceptional undergraduates at the University of Michigan. The program enables students in the Department of Linguistics to complete both a bachelor's degree and the two-year Master of Science in Information (MSI) degree in five years of study. The School of Information will select candidates for this program during their junior year. The A.B./B.S. degree is normally awarded at the end of the senior year (the first year of study in the School of Information) and the MSI degree after completion of its requirements (normally after a second year of graduate study).
In addition, applicants for the joint degree program must show an academic record that is consistent with the demands of completing six years of course work in five years. This means that accelerated degree
applicants must be at or above the norm for the regular entering class at the School of Information, in terms of maturity, GPA, and GRE scores.

Further information can be found under the departmental program statement of Linguistics, or by visiting the School of Information or SI's website: www.si.umich.edu. Interested undergraduates should begin consultation in the sophomore year at the time when they declare their Linguistics major. A separate application to the School of Information is made in the fall academic term of the junior year and is reviewed as part of the regular admission process by the School of Information. Applicants will be notified of the School of Information's decision before the registration deadline in the winter academic term.

Students must satisfy the normal requirements for both the Bachelors and the MSI programs; but any course they take that satisfies a requirement for the Bachelors and also satisfies a requirement for the MSI can be used to satisfy both requirements simultaneously. By taking 24 credits of courses that are "double-counted" in this fashion, it is possible to eliminate a year from the normal course of study. In particular, several designated courses taught in the School of Information and the Department of Linguistics satisfy requirements for both degrees. See the official list of courses for details.

To qualify for admission to the School of Information under the Accelerated Program, students need to show that, given the double counting provision, they will be able to complete the LSA and Linguistics requirements for the Bachelors by the end of the fourth year, while also completing the usual first-year coursework for the MSI.

## Public Health (Bachelor's Degree and Master of Public Health)

Eligibility: Students should be advanced enough to complete their major as well as all general college requirements by the end of their junior year. Minimum eligibility requirements are:

- Must have completed a minimum of 100 credits by the end of their junior year, thus enabling them to graduate in the fall term of their senior year
- Must have a 3.5 GPA at the time of application.


## Admission Process

Students who show enough progress toward completing their undergraduate degree are eligible to apply to the graduate program in the second term of their junior year. Students must first get a recommendation letter of support to the program from:

- LSA students - from the Assistant Dean for Undergraduate Education (Office of Student Academic Affairs)
o Dean's Recommendation/Certification Form from their advisor
- LSA Honors students - from the Director of the Honors Program
- RC students - from the Director of the Residential College

This recommendation should be sent directly to the Admissions Officer at the School of Public Health. The student will complete all required admissions materials for the School of Public Health (application, statement of purpose, letters of recommendation, GRE or MCAT scores) and will apply through the normal school-wide mechanism. He/she should also submit an Election Form and plan for completing the undergraduate requirements and enrolling in the initial set of required graduate courses in the first term of his/her senior year.

Admitted $4+1$ students will matriculate into the School of Public Health at the beginning of the Winter term of their senior year.

## Academic Advising

Once admitted to the SPH graduate program, the student will be assigned a faculty advisor from that department. LSA Academic Advising, however, will retain primary responsibility for academic advising until the student has completed the undergraduate degree.

## Credits

Undergraduates who have been admitted to the SUGS program will be given permission by the graduate program to enroll in the required graduate coursework. Students, however, must be registered a minimum of two terms of the masters program in the graduate career only, with no other U-M registration. No dual enrollment is required. Approved graduate credits taken in the final undergraduate term - typically the Fall of their senior year - will be double counted in the graduate program upon matriculation.

Note: Students can double-count up to 15 credits from their undergraduate coursework towards their graduate coursework if the credits are 400 or higher level.

## Participating departments and degree programs

Health Behavior and Health Education MPH, Epidemiology MPH, and Environmental Health Sciences MPH
www.sph.umich.edu
(734) 763-3860
sph.inquiries@umich.edu

## LSA Departments and Programs: Majors and Minors

This document is an unofficial representation of the information available on the LSA website. For official and updated information, please view the LSA website.
http://lsa.umich.edu/lsa/academics/majors-minors

## Course Information:

webapps.lsa.umich.edu/CrsMaint/Public/CB_PublicBulletin.aspx?crselevel=ug

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## African Studies Center (ASC)

1080 South University Avenue, Suite 3603
(734) 615-3027 (phone)
(734) 936-0996 (fax)
www.umich.edu/~iinet/asc
e-mail: asc-contact@umich.edu
Undergraduates may pursue African Studies through a major or minor in the Department of Afroamerican and African Studies

The African Studies Center is a unit of the International Institute within the University of Michigan. ASC supports and promotes the work of more than 120 faculty members engaged in scholarship related to Africa. The African Studies Center enriches and provides additional support for teaching and research by organizing lectures, workshops, conferences and outreach events and by serving as the focal point for U-M faculty and students engaged in African studies on campus and in Africa.

# Afroamerican and African Studies 

4700 Haven Hall
505 South State Street
(734) 764-5513 (phone)
(734) 763-0543 (fax)
www.Isa.umich.edu/daas
e-mail: daas-info@umich.edu
The Department of Afroamerican and African Studies (DAAS) provides students an opportunity to examine the histories, social organizations, cultures, and arts of people of African descent, particularly those of Africa, the United States, and the Caribbean. The department fosters a comprehensive program of study that enables students to focus within and across these areas, as well as to work within and across various disciplines, including history, literature, linguistics, anthropology, sociology, psychology, political science, economics, music, art, film, communications, and religion. While encouraging comparative analysis of the diverse cultural and social traditions derived from Africa, courses also bring attention to current theories, methodologies, and research on race, cultural identity, socioeconomic class, gender, and sexuality in relation to African, African American, and Afro-Caribbean experiences. In addition to exploring the historical cultures of Africa and its Diaspora, students also have opportunities to study contemporary issues treated in such professional fields as public policy, urban planning, education, environmental studies, information technology, and health sciences.

## Roster of Afroamerican and African Studies Area and Cross-Area Courses

African Studies Courses: 200, 206, 208, 224, 246, 247, 260, 346, 355, 359, 362, 366, 368, 385, 403, 407, 408, 409, 422, 427, 432, 436, 440 453, 460, 462, 595.

Afroamerican Studies Courses: 201, 230, 231, 248, 254, 263, 268, 271, $274,303,323,330,333,334,336,337,338,340,341,342,344,360$, 361, 381, 383, 413, 417, 418, 450, 451, 454, 459, 463, 471, 476, 487, 489, 491, 519.

Caribbean Studies Courses: 202, 384, 444, 464, 473, 564.
Cross-Area Courses: 211, 304, 322, 328 (appropriate sections), 331, 348, 354 (appropriate sections), 365, 373, 390 (appropriate sections), 394, 410, 411, 420, 421, 426, 495 (appropriate sections), 596 (appropriate sections).

## Afroamerican and African Studies

May be elected as an interdepartmental major
Majoring in Afroamerican and African Studies will allow you to gain a broad understanding of the African Diaspora - the varied cultures of Africandescended people around the globe - while at the same time allowing you to develop specialized knowledge about one of three major geographic areas within the African Diaspora: Africa, the Americas, or the Caribbean.

## Prerequisite to the Major

AAS 111: Introduction to Africa and Its Diaspora (4 credits).

## Requirements for the Major

A minimum of 34 credits, to include:

1. Two courses at the $\mathbf{2 0 0}$ level ( 6 credits total):

- One Area Course. This course must focus on one of three major geographic areas of the African Diaspora: Africa, the Americas, or the Caribbean. The following courses best satisfy this requirement:
- AAS 200, "Introduction to African Studies"
- AAS 201, "Introduction to African American Studies"
- AAS 202, "Introduction to Caribbean Studies"
- One Cross-Area Course OR Second Area Course. If you choose to take a cross-area course, it must focus on at least two geographic areas of the African Diaspora. Those geographic areas include Africa, the Americas, the Caribbean, Europe, and Asia. AAS 211, "Dynamics of the Black Diaspora," satisfies this cross-area requirement.
- If you choose to take a second area course, it must focus exclusively on one geographic area of the African Diaspora not covered in your first area course.

2. Eight courses at the $\mathbf{3 0 0}$ or $\mathbf{4 0 0}$ level ( $\mathbf{2 4}$ credits total):

- Six Area Courses (focusing on one geographic area of the African Diaspora). All six of these courses must focus on the same geographic area: Africa, the Americas, or the Caribbean. The area that you choose as your focal point is your submajor area. Among these six courses, you may include some cross-area courses if they include substantial coverage of your submajor area.
- One Cross-Area Course. This course must examine diasporic issues across at least two geographic areas of the African Diaspora. Those geographic areas include Africa, the Americas, the Caribbean, Europe, and Asia.
- One Second Area Course. This course must focus exclusively on one geographic area of the African Diaspora that is not your submajor area.

3. One Senior Seminar: AAS 495 (4 credits). This writing-intensive course offers a capstone experience for seniors. Students writing an AAS Honors thesis must enroll in AAS 495-Honors, an advanced section of the course.

Suggested Specializations. In selecting courses for your submajor, we recommend that you:

1. Cluster your 300 - and 400 -level courses around a particular specialization. Many AAS courses relate to one or more of the following specializations:

- Health and Education
- Expressive Cultures: Literature, Media, Arts, Religion, Languages
- Gender and Sexuality
- Globalization, Transnationalism, and Citizenship
- Development, Politics, Law, and Environmental Studies
- Urban Studies and Social Inequality

For more information about specific courses that satisfy these specializations, please visit:
www.Isa.umich.edu/daas/undergraduate/daascourseofferings
2. Include courses that represent different disciplines. For instance:

- If you are especially interested in African anthropology, you would benefit from taking a course in African sociology or African literature.
- If you are especially interested in African American film and visual art, you would benefit from taking a course in African American psychology, history, or communication studies.
- If you are especially interested in Caribbean or Latin American Studies, you would benefit from taking courses offered by the Department of Romance Languages or the Center for Latin American and Caribbean Studies. (In order to receive credit for courses offered by other programs or departments, you must seek permission from your DAAS advisor.)

For more information, please contact: daasadvising@umich.edu
Honors Plan. Students wishing to pursue DAAS Honors must have a 3.4 overall GPA and a 3.5 GPA in AAS courses. In addition to requirements set for the major, students seeking Honors need to:

- Contact the DAAS Honors Coordinator to apply for the program by the first term of their junior year, and no later than the end of the second term of their junior year. As part of the application process students also select a Faculty Thesis Advisor, who should be a member of the DAAS faculty.
- Take a special section of the Senior Seminar (AAS 495), titled "Advanced Research in Afroamerican \& African Studies," in the Fall term of their senior year. The student's work in the Senior Seminar will focus on drafting a portion (approximately 25 pages) of the Honors thesis.
- Take AAS 410, "Supervised Reading and Research," in the Winter term of their senior year, when they will expand, revise, and complete the thesis. The student's faculty advisor will normally oversee this independent study. The finished Honors thesis should be 40 to 60 pages.
- Submit their final thesis to the DAAS office by the end of March. All theses must have the final approval of the faculty advisor. All theses are also read by at least one and in many cases two additional members of the faculty who will offer feedback and assess the quality of the thesis. If the thesis meets the criteria of excellence for receiving Honors, it will be assigned one of the following rankings: "Honors," "High Honors," or "Highest Honors." The final determination of Honors ranking is made by the Honors Program Coordinator in consultation with the Director of Undergraduate Studies.

Seniors earning Honors are invited along with their guests and advisors to the AAS Graduation Ceremony, at which the students present brief summaries of their theses and receive a special certificate of achievement.

Advising. The DAAS Advising Center ( 5511 Haven Hall) is staffed with faculty and staff eager to provide academic advising on the DAAS curriculum for any student interested in these fields of study, whether pursuing a major, a minor, or one course. Call (734) 764-5513 or drop by during the posted hours. The DAAS Advising Center also sponsors final exam study breaks, informational meetings on graduate study, and other such events.

## Afroamerican and African Studies Minor

UPDATED: Fall 2013 - 11/11/13
A minor in Afroamerican and African Studies is not open to students with a major in the Department of Afroamerican and African Studies.

Students wishing to pursue a minor in Afroamerican and African Studies must develop a specific plan for its completion in consultation with the department's designated advisor. Appointments are scheduled at the Advising Office.

Afroamerican and African Studies is an ideal unit for the student interested in a minor in one of the fields concerned with the study of Africa and its Diaspora. Students can use an AAS minor to supplement and make more coherent their understanding of the knowledge in a traditional discipline. For instance, students concentrating in U.S. history could enhance and deepen their course work by taking a systematic course of study in AAS focusing not only on the many cross-listed courses between AAS and History but also on other non-cross-listed courses that the student might otherwise overlook if not affiliated with AAS. A course in African politics after colonialism, for example, would work well for such a History major.

Because of the plethora of disciplines, interdisciplinary faculty, and geographic connections designed into the DAAS curriculum, an AAS minor can become a valuable intellectual resource for majors in any field where DAAS has faculty strengths, including history, literature in English, anthropology, political science, sociology, education, psychology, art, and communications. Students in other disciplines, such as languages, could also find an asset in the range of AAS courses. A student of French language and literature would benefit from being able to take a series of courses related to Francophone Africa and the West Indies. Students in fairly regulated majors (such as chemistry) who have an interest in African history and culture would be able to pursue such an interest without jeopardizing the major.

## Prerequisites to the Minor: None

Requirements for the Minor. A minimum of 17 credits. Students interested in pursuing a minor in Afroamerican and African Studies must meet the following requirements:

1. AAS 111.
2. One course at the 200 level ( 3 credits). The following courses best satisfy this requirement: AAS 200, 201, 202
3. Two courses at the 300 or 400 level ( 6 credits). These courses must focus on two of three major geographic areas of the African Diaspora (Africa, the Americas, or the Caribbean) or they may be cross-area courses that focus on at least two geographic areas of the African diaspora.
4. One senior seminar: AAS 495 (4 credits).

For further information, please contact: daasadvising@umich.edu

## American Culture

3700 Haven Hall
505 South State Street
(734) 763-1460 (phone)
(734) 936-1967 (fax)
www.lsa.umich.edu/ac/
e-mail: ac.inq@umich.edu
The U-M Program in American Culture is among the most dynamic units on the campus. Its intellectual development focuses on a rethinking of interdisciplinarity. In the spirit of the most creative and responsible scholarship of the new millennium, the Program is moving its intellectual center beyond a coalition of disciplinary specialists laboring in a collaborative relationship and toward the production of scholars whose accomplishments express a genuine synthesis of methods. Moreover, a critical constituent of this process is the reformulation of a vision of American cultures without borders, in an international framework, and with the study of Asian Americans, Latina/os, Native Americans, Arab Americans, and African Americans pivotal to teaching and research. Our goal is to enrich the investigation of American culture by engaging in a refashioning of the more traditional areas of the field of American Studies, together with attentiveness to budding subjects of new study within disciplines across the social sciences and humanities.

The Program in American Culture exposes students to the interdisciplinary study of U.S. society and culture. Our courses integrate a rich array of materials, themes, and approaches from many fields: not only historical and literary study, but also visual studies, musicology, film and media, anthropology, and others. The curriculum of the Program emphasizes the multicultural diversity of American society, paying particular attention to ethnic, gender, and other forms of social difference and inequality. At the same time, it stresses the importance of studying U.S. nationhood, including Americans' (sometimes conflicting) ideals and experiences of what it means to be American. Our courses are designed to explore these issues in both historical and contemporary settings.

Although the major in American Culture offers considerable flexibility and intellectual diversity, it also is designed to foster a community of learning among undergraduates. The Program aims to be an interdisciplinary "village" within the larger College, in which majors share the opportunity for intensive study, conversation, and research about American society and culture.

## Ojibwe Language \& Literature Program

The Ojibwe Program was started at U-M in the early 1970s and is one of the strongest in the country. The Program in American Culture is pleased to serve as the home unit for instruction in the Ojibwe (Anishnaabemowin) language and culture at U-M. Students interested in learning this endangered language have the opportunity to do so through a six-course sequence that also educates participants on the rich cultural history of these people:

- AMCULT 222/223: Elementary Ojibwe
- AMCULT 322/323: Intermediate Ojibwe
- AMCULT 422/423: Advanced Ojibwe

We also offer a course that focuses on the literature of the Anishnaabemowin tribe.

## American Culture

May be elected as an area major

## Prerequisites to the Major. None.

Requirements for the Major. A minimum of 28 credits. No more than 9 credits at the 200 level can be counted toward the major.

1. Core course: AMCULT 275, American Culture at Work.
2. Capstone: AMCULT 498, Capstone Seminar in American Culture.
3. Breadth Requirements: Students must also have classes focused on the following Breath Requirements at the 200-level or higher.

Depending on content, one course might satisfy two or more of these requirements.

- Pre-Twentieth-Century United States
- Transnationalism, Diaspora, and/or Empire
- Women, Gender, and/or Sexuality
- Ethnic and/or Indigenous Studies

4. Electives: Students must elect additional courses at the 200 level or higher under American Culture (AMCULT) and/or any of American Culture's Ethnic Studies SUBJECT Codes (LATINOAM, ASIANPAM, NATIVEAM, ARABAM) to reach the 28 minimum credits required for the major. (Includes Breadth Requirement courses)

Advising. Students are encouraged to consult with the undergraduate advisor. For appointments regarding the major, visit www.lsa.umich.edu/ac/undergraduate/advising.

## American Culture Honors

American Culture Honors provides an opportunity for majors in American Culture and Latina/o Studies to complete a comprehensive, original independent project under the guidance of a faculty member as the culmination of their undergraduate studies. Honors requirements consist of regular American Culture or Latina/o Studies requirements plus the Honors requirements.

American Culture and Latina/o Studies majors with an overall grade-point average of 3.5 or higher may apply for an Honors plan. Students usually apply in the fall term of their junior year.

Honors requirements spans three terms.

- In the second term of the junior year, the student must successfully complete AMCULT 398, which involves preparing a thesis prospectus and bibliography and identifying a supervising faculty advisor and a second reader.
- In both terms of the senior year, the student will enroll in AMCULT 493 ( 3 credits per term) to research and write the thesis.
- participation in three Friday colloquia. Colloquia will focus on peer response to work in progress, as well as on topics of particular usefulness to a given cohort of students. The series will be facilitated by the Director of Undergraduate Studies and is intended to provide seniors with ongoing mentoring.

The primary advisor and the second reader determine the designation of Honors (Honors, High Honors, Highest Honors).

## Latina/o Studies

## May be elected as an area major

A component of the Program in American Culture, Latina/o Studies is designed to give students an opportunity to develop cultural competence on the diverse groups that comprise the U.S. Latina/o populations, that is, Mexican-Americans or Chicano/as, Puerto Ricans, Cuban-Americans, Central Americans, and other peoples of Spanish, Indian and African descent. Soon to become the largest minority group in this country, Latinas/os have not only made contributions to U.S. society with their work, values, cultural traditions and linguistic heritage, they have also participated in the making of this country's history. The Latina/o Studies Program offers a variety of courses, some focusing on particular national groups, others based on a particular discipline, and many others organized around specific comparative topics or issues. Examples of courses in Latina/o Studies include: "History of U.S. Latinos," "Latinas in the United States," "American Immigration," "The Politics of Language and Cultural Identity," "Schooling and Community," "Latino Performance Arts," "Latinos in the Media"," "Empowering Latino Families and Communities," "Migrant Bodies," "Hybrid Texts," "Puerto Rican Literatures: The Island and the Mainland," "Cuba and Its Diaspora," and others.

Prerequisites to the Major. AMCULT 213 / LATINOAM 213. Introduction to Latino Studies

Requirements for the Major. An interdisciplinary degree, the Latina/o Studies major consists of 27 credits beyond the introductory prerequisite. The objective of this major is to engage students in a diversity of disciplinary approaches to the study of U.S. Latinas/os as well as to introduce them to the central intellectual questions and topics that have emerged in this field of inquiry. Given the interdisciplinary nature of Latino Studies, students interested in pursuing graduate study in a particular discipline should double concentrate in the respective department in order to have the needed background to enter graduate school.

## The major consists of:

1. Latino Studies Second Language Proficiency Requirement for the Major: Given the importance of second language proficiency to the study of Latina/o populations in the United States, the Latina/o Studies Program requires all majors to satisfy their $4^{\text {th }}$-term proficiency in Spanish, or another relevant language approved by the program advisor.
2. Students will be required to take one 3 credit course, focusing on Latinos in the U.S., in each of the following areas (Note: the courses listed below the distribution areas are courses that are regularly offered through Latina/o Studies. Students, however, can use courses not listed here to satisfy distribution area requirements, pending approval from the program advisor).

## History and Society

- AMCULT 205. American Cultures, section titled "Latina/o Religions \& Cultures"
- AMCULT 315 / LATINOAM 315, History of U.S. Latinos
- AMCULT 301. Topics in Chicana/o History
- AMCULT 226 / LATINOAM 226. The Latin Tinge: Latin Music in Social Context in Latin America and the United States
- AMCULT 304. American Immigration
- AMCULT 313 / LATINOAM 313. Cuba and its Diaspora


## Gender and Sexuality

- AMCULT 243 / LATINOAM 243. Latinas in the United States
- AMCULT 293. Women of Color


## Language \& the Arts

- AMCULT 327 / LATINOAM 327. Latino/Latina Literature in the United States


## Media \& Popular Culture

- AMCULT 381 / LATINOAM 381. Latinas/os and the Media
- AMCULT 226 / LATINOAM 226. The Latin Tinge: Latin Music in Social Context in Latin America and the United States
- AMCULT 380 / LATINOAM 380. Studies in Transnational Media
- AMCULT 420 / LATINOAM 420. Latin American and Latino/a Film Studies


## Community Service Learning

Community-service learning courses must be in a Latino context. Courses may be chosen from among the following:

- AMCULT 309
- AMCULT 388
- AMCULT 219
- AMCULT 425
- SPANISH 428
- RCCORE 309.006
- SOC 225 (or 389)
- PSYCH 401
- WOMENSTD 425

3. Electives. Two 300-400-level courses in Latina/o Studies.
4. Cognates. Two courses outside the Latina/o Studies Curriculum including advisor-approved courses offered by other departments, one each from the following areas:
a. Latin American culture, history, literature (may include courses in Latin American and Caribbean Studies, Romance Languages and Literatures, Anthropology, History, Sociology, Political Science);
b. Asian Pacific Islander American Studies; African American Studies (may include courses offered through Afroamerican and African Studies); Native American Studies; or Arab American Studies.

Advising. Students are encouraged to consult with the Director of the Latina/o Studies Program who serves as department advisor. For appointments regarding the major, please visit:
www.Isa.umich.edu/ac/undergraduate/advising

## American Culture Minors

American Culture offers a general minor in addition to minors from our Latina/o Studies, Native American Studies, and Asian/Pacific Islander American Studies units. The American Culture minor gives skills, information, and techniques from a wide variety of perspectives and disciplines. Students engage comparative ethnic studies, history, literature, film/media studies, religion, music, art, digital technologies, women's studies, folklore, sexuality studies, and ethnography. Our curriculum allows students a better understanding of the nation's diversity and the U.S.'s role in a global context. We explore what it has meant - and continues to mean - to claim to be an "American. The department also offers a minor in Digital Studies.

Appointments with the respective advisor can be scheduled online at: www.lsa.umich.edu/ac/undergraduate/advising

## American Culture Minor

American Culture's general minor is flexible to allow students to chart their own trajectory. Students should consult with the department's designated advisor to discuss their interests and plan.

American Culture's general minor is an ideal companion degree for any student interested in law, medicine, business, marketing, museum studies, or graduate school in the humanities and social sciences. A minor in American Culture signals that a student can engage with the nation's ever increasing diversity intelligently and critically. Because of the plethora of disciplines, interdisciplinary faculty, and geographic reach designed into the American Culture curriculum (which stretches far beyond the bounds of the continental United States), this minor is a valuable intellectual resource for any career.

This minor is aimed at students with interests in understanding how they came to know their role in the United States. The general American Culture minor encourages students to take an ensemble of courses focusing on, for example, comparative ethnic studies, popular culture, gender and sexuality studies, digital technologies, media and society, or contemporary social issues.

## Prerequisites to the Minor: None.

## Requirements for the Minor: At least 15 credits.

1. One AMCULT course ( 3 credit) at 200-level, or higher (AMCULT 222 and 223 are excluded).
2. AMCULT 275: Practices of American Culture ( 3 credits).
3. Three additional courses ( 9 credits total) at 300 -level or higher. In consultation with the AC undergraduate advisor, students will plot their own path toward the minor through these additional courses.

## Arab and Muslim American Studies Minor

Today, an estimated 3.5 million Arab Americans and an overlapping 8 million Muslim Americans live in the United States. Michigan is a major center for these massive and growing populations. The Detroit metropolitan region has the largest concentration of Arab Americans in the nation (almost half a million). Moreover, the Arab region and its diasporas have become increasingly central to U.S. history, diplomacy, and politics. Immigration and displacement by war and the forces of global economy are among the factors that have sparked movements of Arab people to the United States. Since September 11, 2001, there has been increased national attention to Arab and Muslims Americans and a scholarly renaissance in the field.

This minor is intended for students interested in Arab and/or Muslim diasporas and who wish to develop a coherent understanding of the cultural politics of being Arab and/or Muslim in the U.S. and the contributions of Arabs/Muslims in American culture. Students will draw on the Arab and Muslim American Studies minor to supplement and make more coherent their understanding of the knowledge formed in a traditional discipline. For instance, students with interests in Arab and/or Muslim American identities, experiences, culture, or politics, who are majoring in a traditional humanities or social science discipline can enhance and deepen their thinking about Arabs and/Muslim communities by taking a systematic supplement of courses designed around those populations. Students majoring in Near Eastern Studies, International Studies, Public Policy, Anthropology, Sociology, History, English, Intergroup Relations, Political Science, and Women's Studies would take particular interest in this minor, as well as those majoring in American Culture.

The minor in Arab and Muslim American Studies offers students:

- An interdisciplinary approach to Arab and Muslim American studies that integrates research and teaching methods from various fields, such as history, media studies, religious studies, literature, anthropology, and sociology, among others
- A transnational approach that highlights the relationship between Arab and Muslim homelands and diasporas
- Comparative approaches that place the understanding of Arab and Muslim American history and experiences in relation to other racial, ethnic, religious, or immigrant groups
- Community-based approaches that link universities with Arab and Muslim American communities through internships and collaborative projects


## Prerequisites to the Minor: None

Requirements for the Minor: A minimum of 5 courses ( 15 credits). At least one course must be at the 300- or 400 -level, and at least three courses must be taken in American Culture (AMCULT) or Arab American Studies (ARABAM).

1. Survey course. Any 200-level ARABAM course
2. Electives. At least two additional courses (6 credits) offered by American Culture/Arab American Studies providing interdisciplinary study of Arab and/or Muslim American histories, literatures, and cultures, chosen from the list below or selected in consultation with and approved by the Arab and Muslim American Studies minor advisor:

- AMCULT 311. Topics in Ethnic Studies, section titled "Camels, Kabobs and Kahlil: Arab American Cultural Studies"
- AMCULT 498, Capstone Seminar in American Culture, section titled "Why Do They Hate Us: Perspectives on 9/11"
- ARABAM 236 / AMCULT 236. Muslims in America
- ARABAM 290 / AMCULT 290 Arab American Literature
- ARABAM 311. Arab American Studies and the Humanities, section titled "Camels, Kabobs and Kahlil: Arab American Cultural Studies"
- ARABAM 390 / AMCULT 390. Internship in Arab and Muslim American Studies
- ARABAM 498, Capstone Seminar in Arab American Studies, section titled "Why Do They Hate Us: Perspectives on 9/11"

3. Electives. Two additional courses ( 6 credits) in American Culture/Arab American Studies, or in another department. These electives may be chosen from the list below or selected in consultation with and approved by an American Culture advisor.

Courses in other departments providing comparative, transnational, or broader perspectives on Arab and Muslim Americans.

- AAPTIS 100 / ACABS 100 / HISTORY 132 / HJCS 100. Peoples of the Middle East
- AAPTIS 285 / HISTART 285. Visual Culture Islam
- AAPTIS 325 / HISTORY 325 / ASIAN 324 / MEMS 325 / RELIGION 325. The History of Islam in South Asia
- AAPTIS 363 / RELIGION 363. The Qur'an and Its Interpretations
- AAPTIS 365. The Prophet Muhammad in Islam
- AAPTIS 381. Introduction to Arab Literature in Translation
- AAPTIS 383. The Arab-Israeli Conflict in Middle Eastern Literature
- AAPTIS 486. Topics in Modern Arabic Literature in Translation
- AAPTIS 487 / HISTORY 443. Modern Middle East History
- AAPTIS 493 / MENAS 493. Comparative Perspectives of the Middle East and North Africa
- ACABS 100 / AAPTIS 100 / HISTORY 132 / HJCS 100. Peoples of the Middle East
- ANTHRCUL 409. Peoples and Cultures of the Near East and North Africa
- ASIAN 324 / HISTORY 325 / AAPTIS 325 / MEMS 325 / RELIGION 325. The History of Islam in South Asia
- ENGLISH 280. Introduction to Digital Cultures, section titled "Writing Islam"
- ENGLISH 317. Literature and Culture, section titled "Arab American Literature"
- HISTART 285 / AAPTIS 285. Visual Culture Islam
- HISTORY 132 / AAPTIS 100 / ACABS 100 / HJCS 100. Peoples of the Middle East
- HISTORY 241. America and Middle Eastern Wars
- HISTORY 243 / MENAS 243. Islamic World History
- HISTORY 324. Muslims in Contemporary Europe
- HISTORY 325 / AAPTIS 325 / ASIAN 324 / MEMS 325 / RELIGION 325. The History of Islam in South Asia
- HISTORY 443 / AAPTIS 487. Modern Middle East History
- HISTORY 449. Topics in Middle Eastern History
- HJCS 100 / AAPTIS 100 / ACABS 100 / HISTORY 132. Peoples of the Middle East
- MEMS 325 / HISTORY 325 / AAPTIS 325 / ASIAN 324 / RELIGION 325. The History of Islam in South Asia
- MENAS 243 / HISTORY 243. Islamic World History
- MENAS 493 / AAPTIS 493. Comparative Perspectives of the Middle East and North Africa
- REEES 490 / SOC 490 / WOMENSTD 492. Women and Islam: A Sociological Perspective
- RELIGION 325 / HISTORY 325 / AAPTIS 325 / ASIAN 324 / MEMS 325. The History of Islam in South Asia
- RELIGION 363 / AAPTIS 363. The Qur'an and Its Interpretations
- SOC 218 / UC 218. Foundations of Intergroup Relations
- SOC 490 / REEES 490 / WOMENSTD 492. Women and Islam: A Sociological Perspective
- UC 218 / SOC 218. Foundations of Intergroup Relations
- WOMENSTD 492 / SOC 490 / REEES 490. Women and Islam: A Sociological Perspective
- Another course with significant Arab or Muslim content from another department, contingent on approval from an Arab and Muslim American Studies minor advisor.
- 300- or 400-level Arabic language course or other relevant language can be applied toward the minor with consent of the AMAS advisor. (no more than three credits can be applied toward the minor)

Advising: The designated Director of Arab American Studies will be responsible for advising most students with the assistance of the American Culture Undergraduate Program Coordinator and Ethnic Studies Associate. Both the Associate Chair and the Chair will provide back-up advising.

## Asian/Pacific Islander American Studies Minor

A minor in Asian/Pacific Islander American Studies is not open to students with any minor in the Department of American Culture.

The Asian/Pacific Islander American Studies (A/PIA) program within American Culture offers interdisciplinary graduate and undergraduate courses focusing on Asian American and Pacific Islander communities and experiences.

A/PIA is a focal point for university research and teaching on issues concerning Asian American and Pacific Islanders, providing resources for their understanding. The unique historical and political circumstances surrounding the incorporation of Asian immigrants and Pacific Islanders into American society, and the broad range of stratification spanning such communities, underscores the richness and theoretical importance of
studying A/PIA communities alongside - and often in contrast to - that of other groups in the United States.

Students may take a full range of courses examining the historical, political, economic, literary, artistic, cultural, and psychological forces, which have shaped and continue to shape the lives and communities of Asian Americans and Pacific Islanders.

The minor in Asian/Pacific Islander American Studies is intended for students who wish to develop a coherent understanding of the contributions of the Asian/Pacific Islander American presence in American life, history, and thought.

Students interested in pursuing a course of study in A/PIA should contact Scott Kurashige, Director of Asian/Pacific Islander American Studies.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits, in the following categories as stated:

1. ASIANPAM 214 / AMCULT 214: Introduction to Asian/Pacific American Studies
2. Core: Four courses (minimum of 12 credits). These courses may be taken from within, or from across, any of the three areas of specialty listed below that are regularly offered in A/PIA, as well as other 200and 300-level courses occasionally offered in A/PIA. One of these four courses may be a 100-level course (e.g., Freshman Seminar on an A/PIA topic), while 200 and 300 level courses with A/PIA content offered in other departments can count if approved by the A/PIA Director:
a. Historical Experience:

- ASIANPAM 314 / AMCULT 314 / HISTORY 378. History of Asian Americans in the U.S.
- ASIANPAM 317 / AMCULT 317. History of the Pacific Islands.
- appropriate sections of AMCULT 310 (Topics in Ethnic Studies) or AMCULT 496 (Social Science Approaches to American Culture), chosen in consultation with, and approved by, the advisor.
b. Cultural Expression:
- ASIANPAM 324 / AMCULT 324 / ENGLISH 381. Asian American Literature.
- ASIANPAM 325 / AMCULT 325 / ENGLISH 388. Pacific Literacy and Cultural Studies.
- appropriate sections of AMCULT 311 (Topics in Ethnic Studies) or AMCULT 498 (Capstone Seminar in American Culture), chosen in consultation with, and approved by, the advisor.
c. Contemporary Communities:
- ASIANPAM 305 / AMCULT 305. Asian Pacific American Community Service and Learning
- ASIANPAM 346 / AMCULT 346. Asian American Communities and Social Issues
- ASIANPAM 347 / AMCULT 347. Pacific Islander American Communities
- appropriate sections of AMCULT 301 (Topics in American Culture) or 310 (Topics in Ethnic Studies), chosen in consultation with, and approved by, the advisor.


## Digital Studies Minor

Effective Fall 2016 4/13/2016 : course list additions
Digital Studies encompasses new and diverse practices and methodologies immediately relevant to contemporary concerns. The field includes scholars who create digital archives, analyze on-line materials, and / or disseminate text, image, and video using new platforms and computational tools. Other academics study the everyday practice of digital culture in specific cultural contexts. Rapid technological transformations are altering our expectations for engaged citizenship and civic practices as well as scholarly research and publishing.

The Digital Studies minor is aimed at students with academic interests in the role that digital media play in U.S. culture, history, and media, and provides students with the methods and tools for studying, analyzing, and writing about their everyday engagements with electronic forms of
community and culture in the U.S. The courses offer both humanistic and social scientific approaches to the study of all things digital.

Students can use the Digital Studies minor to supplement and make more coherent their understanding of the knowledge formed in a traditional discipline. As digital media use becomes ubiquitous and an increasingly important driver of the U.S. economy, as well as a cultural force in its own right, students in History, Women's Studies, English, African-American and other Ethnic Studies, Political Science, Communication Studies, Sociology, and Screen Arts \& Cultures find themselves attracted to the topic as a way to engage with their main areas of study. For instance, students with interests in digital media, history, and culture who wish to focus on topics not consistently covered in a traditional humanities or social science discipline can enhance and deepen their work in another major by taking a systematic supplement of courses in Digital Studies. An appropriate student for the Digital Studies minor may be putting together an ensemble of courses focusing on, for example, digital economies and intellectual property debates; digital labor, race, gender and identity in online spaces; algorithmic cultures and computing history; digital games studies; online communities; shifting distribution channels.

Students wishing to pursue a minor in Digital Studies must develop a specific plan for its completion in consultation with one the department's designated advisors.

## Prerequisites to the Minor: None

Requirements for the Minor: A minimum of 16 credits, to be chosen from the following categories as stated:

## 1. Core Course: AMCULT 202 Digital Culture

2. Electives: Four additional courses, three of which must be at the 300level or above:

- AMCULT 301 Topics in American Culture, sections titled "Digital Histories of America" and "Politics of Code"
- AMCULT 334 / SAC 334 / COMM 334 Race, U.S. Culture, and Digital Games
- AMCULT 358. Topics in Digital Studies (effective Fall 2016)
- AMCULT 498 Capstone Seminar in American Culture, sections titled
"Numbers and Stories in American Experiences"
"Race on the Internet"
"Queer Digital Culture \& Gaming" [TopicID \#42] (effective Fall 2016)
- ARTDES 200, section titled "Programming for Poets"
- ARTDES 372 Video Games
- ASIAN 282 / SAC 282 / RCHUMS 283 Asia Goes Viral: Asian Pop Culture in the Age of Social Media
- COMM 271 Communication Revolutions
- COMM 315 Critical Approaches to the Internet
- COMM 334 / AMCULT 334 / SAC 334 Race, U.S. Culture, and Digital Games
- COMM 350 The Rise of Mass Culture
- COMM 362 Digital Media Foundations
- COMM 365 Visual Culture and Visual Literacy
- COMM 418 Designing Web Research
- COMM 423 Computer Mediated Communication
- COMM 424 Race, Gender and New Media
- COMM 425 Internet, Society and the Law
- COMM 461 Visuality and New Media
- EDUC 222 Video Games and Learning
- ENGLISH 280 Introduction to Digital Cultures
- ENGLISH 403 Topics in Language and Rhetorical Studies, section titled "Digital Rhetorics"
- ENGLISH 420 Technology and the Humanities
- HISTORY 379 / RCSSCI 379 / SI 379 History of Computers and the Internet
- RCHUMS 283 / SAC 282 / ASIAN 282 Asia Goes Viral: Asian Pop Culture in the Age of Social Media
- RCSSCI 379 / HISTORY 379 / SI 379 History of Computers and the Internet


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- SAC 282 / RCHUMS 283 / ASIAN 282 Asia Goes Viral: Asian Pop Culture in the Age of Social Media
- SAC 334 / AMCULT 334 /COMM 334 Race, U.S. Culture, and Digital Games
- SAC 367 Introduction to Digital Media Studies
- SAC 368 Topics in Digital Media Studies, section titled "Video Games as Culture / Form" and "Virtuality and Digital Identity"
- SAC 376 New Media Theory
- SI 379 / RCSSCI 379 / HISTORY 379 History of Computers and the Internet
- SI 410. Ethics and Information Technology
- SI 429 eCommunities: Analysis and Design of Online Interaction
- WRITING 200 New Media Writing
- WRITING 201 New Media Writing Mini-Course

Other courses as approved by the department advisor.

## Latina/o Studies Minor

A minor in Latina/o American Studies is not open to students with a Latina/o Studies major or any minor in the Department of American Culture.

The minor in Latina/o Studies is intended for students who wish to develop a coherent understanding of the contributions of the Latina/o presence in American culture, history, and society. The minor supplements majors in traditional humanities and social science disciplines by providing content knowledge of Latina/o communities. The minor will also benefit students pursuing degrees in the professional world in areas such as public health, social work, business, and pre-law thus better preparing them for work in their chosen field.

Prerequisites to the Minor (must be taken for a letter grade): LATINOAM 213 / AMCULT 213: Introduction to Latina/o Studies.

Requirements for the Minor: At least 15 credits (must be taken for letter grade), chosen from the following categories as stated:

1. Latina/o Studies Core. At least two courses chosen from any of the following:

- LATINOAM 315 / AMCULT 315 / HISTORY 377. History of Latinos in the United States.
- LATINOAM 327 / AMCULT 327 / ENGLISH 387 / SPANISH 327. Latino/Latina Literature of the United States
- LATINOAM 381 / AMCULT 381 / SAC 381. Latinas/Latinos and the Media
- LATINOAM 243 / AMCULT 243 / WOMENSTD 243. Introduction to Study of Latinas in the United States

2. Latina/o Studies Electives: Three courses (minimum of 9 credits), at least one of which must be at the 400 level. Only one course below the 300 -level (including a first-year seminar on Latina/o Studies topic) may be used to satisfy this requirement.

Courses that a student did not use in Requirement 1 can be used to satisfy the elective requirement.

Students may elect a comparative ethnic studies course that includes a Latina/o component.

## Native American Studies (NAS) Minor

A minor in Native American Studies is not open to students with any minor in the Department of American Culture.

The Native American Studies Program offers undergraduate and graduate courses in the field with an emphasis on Native American literature. Its curriculum includes an undergraduate minor and graduate courses organized around multiple disciplines in the humanities and social sciences.

The minor in Native American Studies permits students to explore the North American Indian experience in an interdisciplinary manner. The goal of the minor is to assist students in coherently planning a curriculum that will enable them to grapple intelligently and in an informed manner with the history, experience, and contributions of Native Americans in the United States and Canada. Courses in language, literature, the social sciences, and the humanities form the main areas of study, but students may occasionally have an opportunity to explore Native American arts, historic and contemporary.

Students interested in pursuing a minor in NAS should contact the Director of Native American Studies.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 5 courses totaling 15 credits, at the 200-level or above. At least two courses ( 6 credits) must be elected at the 300-level or above.

1. General Surveys: One course chosen from:

- AMCULT 216. Introduction to Native American Studies - Social Science
- NATIVEAM 217 / AMCULT 217. Introduction to Native American Studies - Humanities
- NATIVEAM 316 / AMCULT 316 / ANTHRCUL 315. Native American Peoples of North America
- NATIVEAM 367 / AMCULT 367 / HISTORY 367. American Indian History

2. Electives: Additional credits in Native American Studies to bring minor total to 15 [Courses from Requirement 1 may not be used to meet Requirement 2]. Electives may be chosen from the following list:

- AMCULT 262 / RELIGION 262. Introductory Study of Native Religious Traditions
- AMCULT 301. Topics in American Culture, section subtitled "Native American Feminism"
- AMCULT 310. Topics in Ethnic Studies, section subtitled "Blacks, Indians, and the Making of America"
- AMCULT 428. Native American Literature
- AMCULT 496. Social Science Approaches to American Culture, section subtitled "Native American Mental Health"
- AMCULT 498. Capstone Seminar in American Culture, sections subtitled "Native American Autobiography," "African American and Native American Women Writers"
- NATIVEAM 322 / AMCULT 322. Intermediate Ojibwe
- NATIVEAM 323 / AMCULT 323. Intermediate Ojibwe
- NATIVEAM 328 / AMCULT 328 / ENGLISH 382. Native American Literature
- NATIVEAM 422 / AMCULT 422. Advanced Ojibwe
- NATIVEAM 423 / AMCULT 423. Advanced Ojibwe NATIVEAM 461 / AMCULT 461 / ANTHRCUL 461 / LING 461. Language, Culture, and Society in Native North America
- ENGLISH 417, section subtitled "Contemporary Native American Women Writers"
- RELIGION 262 / AMCULT 262. Introductory Study of Native Religious Traditions

Other courses, such as courses in other departments and special topics courses not listed above, may be taken with the approval of the Director of Native American Studies. These may include

- "Histories of Native American Women,"
- " $19^{\text {th }}$-Century Native American Literature,"
- "Contemporary Native American Literature,"
- "Contemporary Literature by Native Americans."


## Anthropology

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1085 South University Avenue
(734) 764-7274 (phone)
(734) 763-6077 (fax)
www.lsa.umich.edu/anthro
Anthropology is a field of study that deals with both the biological and cultural aspects of humanity. Its basic concerns include the organic evolution of the human species; the origin, development, and integration of customs, techniques, social relationships, and beliefs that define a way of life (or culture) of human social groups; and the interrelations among these biological and cultural factors in human behavior.

The subject matter of anthropology is divided into four major areas of study: Anthropological Archaeology (ANTHRARC), Biological Anthropology (ANTHRBIO), Linguistic Anthropology, and Sociocultural Anthropology (ANTHRCUL).

Biological Anthropology considers human evolutionary history, the causes of present genetic diversity, and biological aspects of human behavior. It uses the evidence and concepts of paleontology, primate studies, population genetics, growth and nutrition, and ecology.

Anthropological Archaeology seeks to understand human behavior in the past, by examining the remains of human activity (such as settlements, tools, pottery) that have survived from earlier times. Through the analysis of material remains, archaeologists explore the cultural forms and social organization of human societies over the longest possible time span.

Sociocultural Anthropology describes, analyzes, and compares the widest possible range of human cultures and social institutions, with emphasis on the present day. While some sociocultural anthropologists concentrate on societies that differ from our own in scale or cultural history and way of life, others examine contemporary European and American societies with the wider perspective gained from looking at other cultures and societies.

Linguistic Anthropology views language as one of the most distinctive characteristics of human beings. It studies language in the context of human evolution, social relationships, and cultural forms, and it explores the role of languages and ways of speaking in cultural difference and social action.

Advising. The department offers undergraduate majors for a bachelor's degree in Anthropology and Evolutionary Anthropology: minors are offered in Medical Anthropology, Biological Anthropology, and Anthropology (with tracks in Sociocultural Anthropology, Linguistic Anthropology, and Archaeological Anthropology).

All anthropology faculty members are available for informal discussion with students during scheduled office hours (check the Department office for times).

Department advisors are available to explain program objectives and requirements and to help with the planning of your program.

Students wishing to pursue a minor in the Department of Anthropology should contact the undergraduate advisor with any questions.

Appointments are scheduled in the Department office or online at: www.Isa.umich.edu/anthro/undergraduates/advising

## Anthropology

May be elected as a departmental major
Updated 11/14/2015 - Effective Winter 2016
Updated 3/21/2016 effective Fall 2016
The Undergraduate Anthropology Program emphasizes the commitment of this department to four-field anthropology, providing exposure to Anthropological Archaeology, Biological Anthropology, Linguistic

Anthropology, and Sociocultural Anthropology. This holistic approach serves Anthropology's intellectual goal to achieve a comprehensive and comparative understanding of humanity. An undergraduate major in Anthropology contributes to a liberal arts education, offering a disciplined awareness of human behavior and social institutions in different times and places.

Prerequisites to the Major. None, but ANTHRCUL 101 is recommended.
Requirements for the Major. At least 34 credits at the 200-level or above are required:

## Choose at least one course in each of the following subfields:

A. Anthropological Archaeology:

- ANTHRARC 282 Introduction to Prehistoric Archaeology
- ANTHRARC 386 Early Civilizations


## B. Biological Anthropology:

- ANTHRBIO 201 Introduction to Biological Anthropology
C. Linguistic Anthropology:
- ANTHRCUL 272, Language in Society
- ANTHRCUL 374 Language and Culture
D. Sociocultural Anthropology:
- ANTHRCUL 222 The Comparative Studies of Culture
- ANTHRCUL 226 Introduction to Historical Anthropology
- ANTHRCUL 230 Fundamentals of Social Theory
- ANTHRCUL 330 Culture, Thought, and Meaning

Other credits are taken from any subfield or combination of subfields with a minimum of four courses at the 300-level or above, at least one of which must be at the 400-level.

At least 20 credits must be completed in residence at the University of Michigan.

A maximum of 6 credits of independent research can be counted toward the major.

Honors Plan. Students interested in scholarly research are encouraged to consider the Honors plan. Previous participation in the College Honors program is not a prerequisite. Seniors admitted to the Honors plan normally elect a seminar in their special field of interest: biological anthropology (ANTHRBIO 398), archaeology (ANTHRARC 398) or sociocultural or linguistic anthropology (ANTHRCUL 398). The seminars give students an opportunity for intensive training and research experience; the Honors plan requires a senior thesis. Interested students should consult an Anthropology advisor for more information.
Teaching Certificate. Students interested in obtaining a secondary teaching certificate with a teaching minor in Anthropology should consult the "Teacher Certification Program" on the LSA website and the School of Education Office of Academic Services.

## Evolutionary Anthropology

May be elected as an interdepartmental major
1/27/2016 Effective Winter 2016
4/29/2016 Effective Winter 2016
Evolutionary Anthropology is a joint major, with courses from the Department of Anthropology; the Departments of Earth and Environmental Sciences; Ecology and Evolutionary Biology; Molecular, Cellular and Developmental Biology; and Psychology; and the School of Natural Resources and the Environment. It combines anthropological and biological perspectives in the study of humans and related species. It is particularly appropriate for students planning to continue in the health sciences and for students interested in "whole organism" biology and ecology. Thus, many Evolutionary Anthropology majors are training for medical school, while others are planning to pursue careers in natural

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resource management, conservation, animal behavior, and other fields. Because evolutionary biology forms its primary theoretical basis, the major does not require courses in other sub-disciplines of anthropology. Students who are interested in biological anthropology and seek broader training in anthropological archaeology, linguistic anthropology, and sociocultural anthropology may pursue a degree as an Anthropology major. Students should contact the undergraduate advisor in the Department of Anthropology for further information.

## Prerequisites to the Major.

- ANTHRBIO 201
- BIOLOGY 171, 172, 173; or BIOLOGY 195 and 173

Requirements for the Major. At least 32 credits at the 200-level and above, distributed as follows:
A. Anthropology. A minimum of five courses, with at least one course from each of the four groups below. Two courses must be at the 400level or above. Courses listed in more than one group below cannot be counted twice:*

1. Paleoanthropology and morphology:

ANTHRBIO 351, 360, 365, 366, 465, 466, 471(TopicID=3 - Effective Winter 2016, TopicID=4 - Effective Winter 2016), 474, 475, 476, 477, 479
2. Ecology and behavior:

ANTHRBIO 342, 361, 362 (effective Winter 2016), 368, 373, 467, 468, 471, 472, 478, 668 (section titled "Primate Behavior") Effective Winter 2016
3. Human adaptation:

ANTHRBIO 364, 366, 373, 462, 471, 472
4. Evolution and genetics:

ANTHRBIO 342, 360, 361, 363, 365, 450, 452, 461, 467, 471
(TopicID=2- Effective Winter 2016), 475, 476, 479

* Courses taken as ANTHRBIO 469 (Topics in Biological Anthropology) or graduate-level topics courses can be counted in the appropriate group.
B. Biology. A minimum of three courses representing both of the groups below:

1. Molecular, Cellular, and Developmental Biology:

ANAT 403, 541
BIOLCHEM 415
BIOLOGY 205, 207, 222, 225, 305
CHEM 351
EEB 341, 490
MCDB 308, 310, 352, 404, 405, 408, 417, 418, 422, 427, 462
PHYSIOL 201, 502, 541
PSYCH 438, 532
2. Ecology, Evolution, and Behavior:

BIOLOGY 252, 256, 281, 288
CMPLXSYS 430
EARTH 418/419, 437, 438
EEB 315, 381, 390, 404, 412, 424, 430, 451, 470, 472, 476, 492
ENVIRON 281, 315, 415, 451, 476
NRE 415, 451, 476
PSYCH 335
C. Remaining credits may be selected from other biological anthropology or biology courses within the major, or from relevant courses in other departments approved by the program advisors.

At least 20 credits must be completed in residence at the University of Michigan.

A maximum of 6 credits of independent research can be counted toward the major.

Honors Plan. The Honors Plan in Evolutionary Anthropology is individually arranged with the department advisor and requires a senior thesis.

Recommendations for degrees with Honors are made by the department advisor after consultation with the Honors advisor in biological anthropology.

## Minors in Anthropology

Anthropology at the University of Michigan emphasizes four-field training. Our majors gain anthropological understanding of the human condition through exposure to Sociocultural Anthropology, Biological Anthropology, Anthropological Archaeology, and Linguistic Anthropology and their many interrelationships. Many students, however, take our courses to supplement other majors or out of general interest and have less need for four-field training. Minors in anthropology may benefit these students, providing structure to their course elections, and allowing thoughtful integration of anthropology into their academic plans. The department offers three minors: Anthropology, Biological Anthropology, and Medical Anthropology.

## Anthropology

The Anthropology minor is not open to students with any major or any other minor in the Department of Anthropology.

The sub-disciplines of anthropology are natural complements to many majors. The minor in Anthropology allows students with particular regional or topical interests to add an anthropological perspective to their studies, whether sociocultural, linguistic or archeological. Students may choose a track that emphasizes Sociocultural Anthropology, Linguistic Anthropology, or Anthropological Archaeology.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least five courses (no fewer than 16 credits) in one "track" to be chosen from the following tracks, as described below.

## 1. Sociocultural Anthropology

a. One general introduction to anthropology: ANTHRCUL 101 or 222.
b. One upper-level course in anthropological theory from those designated Sociocultural Anthropology-Theory/Method.
c. Three anthropology courses, chosen in consultation with the advisor. At least one course must be at the 400 -level, one course must be a regional course.
2. Linguistic Anthropology
a. One general introduction to anthropology; ANTHRCUL 101 is recommended.
b. ANTHRCUL 272.
c. At least three upper-level courses from those listed under Linguistic Anthropology in the LSA Course Catalog or under Course Info at:
www.Isa.umich.edu/anthro/undergraduates/courses/ undergraduatecoursesinanthropology_ci.

## 3. Anthropological Archaeology

a. ANTHRARC 282.
b. ANTHRARC 385 or 386 .
c. Three additional regularly offered courses in anthropological archaeology, two of which must be 300-level or above, chosen from ANTHRARC 258, 285, 283, 284, 381, 382, 383, 385, 386, 392, $394,407,442,482,484,490$, or 495.
d. Other less regularly taught courses in anthropological archaeology may also be used. Consult the undergraduate advisor for more information. Field courses (ANTHRARC 400 or 487) and Independent Reading and Research (ANTHRARC 499) may not be used toward the minor.

## Biological Anthropology

## Effective Fall 2014 (9/30/2015 - retroactive)

The Biological Anthropology minor is not open to students with any major or any other minor in the Department of Anthropology.

The minor in Biological Anthropology allows students with interests in evolutionary biology or medicine to add an anthropological perspective to their studies. Many students are interested in specific topics covered by Biological Anthropology, such as Human Evolution, the Evolution of Human Behavior, Primatology, Nutrition and Adaptation, Human Genetics, etc. Thus, a minor in biological anthropology offers several "tracks" to students depending on their interests.

Prerequisites to the Minor: None.
Requirements for the Minor: At least five courses (no fewer than 16 credits), to be chosen from the following categories as stated:

1. ANTHRBIO 201 (or 161 prior to Fall 2014).
2. At least four upper-level courses in ANTHRBIO, chosen in consultation with an advisor, one of which must be at the 400-level or above.

## Medical Anthropology

Not open to students electing the Science, Technology, and Society minor in the Residential College or any other minor in the Department of Anthropology

The minor in Medical Anthropology allows students to focus on the social basis of illness and healing from different cultural perspectives. The minor might be elected by students interested in client-practitioner interactions, traditional and complementary medicine, the production of medical knowledge, body politics, bioethics, and reproductive health, among other topics. It might also be relevant for those students interested in adding anthropological perspective to their preparation for a career in medicine, public health, or other health sciences.

Prerequisites to the Minor: None, but ANTHRCUL 101 or 222 are recommended.

Requirements for the Minor: At least five courses (no fewer than 16 credits), to be chosen from the following categories as stated:

1. Core: ANTHRCUL 344, Medical Anthropology
2. Area and Topical Courses Choose four courses from the following list :

- ANTHRBIO 342 / ANTHRCUL 342. Nature/Culture Now!
- ANTHRBIO 363, Genes, Disease, Culture
- ANTHRBIO 364, Nutrition \& Evolution
- ANTHRBIO 462. Human Growth and Development Across the Life Cycle (effective Winter 2016, retroactive to Fall 2015)
ANTHRCUL 212/WOMENSTD 212/NURSING 225, The Global HIV/AIDS Epidemic
- ANTHRCUL 232, Genes, Genealogies, Identities: Anthropological Perspectives
- ANTHRCUL 256, Culture, Adaptation and Environment
- ANTHRCUL 258, section subtitled "Culture \& Medicine"
- ANTHRCUL 325/WOMENSTD 324, Childbirth \& Culture
- ANTHRCUL 327/RCSSCI 327, Critical Theory in Medicine and Healing
- ANTHRCUL 342 / ANTHRBIO 342. Nature/Culture Now!.
- ANTHRCUL 352, Anthropology of the Body
- ANTHRCUL 354 / HISTART 354. Art, Science, and Technology
- ANTHRCUL 355/AAS 355/HISTORY 355, Health \& Illness in African Worlds
- ANTHRCUL 408/AAS 409, Maternal/Child Health \& Environmental Pollution in Africa
- ANTHRCUL 437. The Anthropology of Death, Dying, and the Afterlife
- AAS 355/HISTORY 355/ANTHRCUL 355, Health \& Illness in African Worlds
- AAS 365/WOMENSTD 365, Global Perspectives on Gender, Health, \& Reproduction
- AAS 409/ANTHRCUL 408, Maternal/Child Health \& Environmental Pollution in Africa
- HISTART 354 / ANTHRCUL 354. Art, Science, and Technology
- HISTORY 355/AAS 355/ANTHRCUL 355, Health \& Illness in African Worlds
- NURSING 225/ANTHRCUL 212/WOMENSTD 212, The Global HIV/AIDS Epidemic
- RCSSCI 327/ ANTHRCUL 327, Critical Theory in Medicine and Healing
- WOMENSTD 212/ANTHRCUL 212/NURSING 225, The Global HIV/AIDS Epidemic
- WOMENSTD 324/ANTHRCUL 325, Childbirth \& Culture
- WOMENSTD 365/AAS 365, Global Perspectives on Gender, Health, \& Reproduction

3. or a course(s) approved by the Undergraduate Advisor.

The minor must include at least two courses at the 300-level or above.

## Applied Physics

2071 Randall Laboratory
450 Church Street
(734) 936-0653 (phone)
(734) 764-2193 (fax)
www-applied.physics.Isa.umich.edu
e-mail: cyndia@umich.edu

Applied Physics is a graduate intercollegiate program with participating faculty in the College of Literature, Science, and the Arts, the College of Engineering, and the Medical School. It combines coursework in the fundamentals of physical theory, its applications to technology, and practical "hands-on" training in the research laboratories leading to the Ph.D. degree.

## Architecture + Urban Planning

A. Alfred Taubman College of Architecture + Urban Planning (TCAUP) 2000 Bonisteel Boulevard
(734) 764-1300 (phone)
(734) 763-2322 (fax)
taubmancollege.umich.edu
e-mail: TaubmanCollegeStudentServices@umich.edu
Architectural education at the University of Michigan prepares students to participate actively in the design of buildings and the physical environment. To effect change, an architect must understand the nature of the human problem in its environmental context, have knowledge of the techniques and technology of building, and possess the intellectual and aesthetic skills necessary for a creative synthesis of that information into meaningful and expressive design solutions.

Joint degree programs with LSA provide opportunities for students whose educational goals include:

- undergraduate degrees in both LSA and Architecture
- an undergraduate degree in LSA and a Masters in Architecture

Pre-Architecture Advising. The architecture program provides academic advising to current students at the University of Michigan and those enrolled at other colleges wishing to transfer into the undergraduate program. Students enrolled at U-M are encouraged to discuss their academic plans with both their current academic advisor (through their home department) and with a Taubman College Student Services Representative. You can schedule a visit online, email TaubmanCollegeStudentServices@umich.edu, or call (734) 615-0431. Appointments are held Monday - Friday from 9:00 AM - 4:00 PM. All appointments are held at the Art and Architecture Building (Room 2150) on north campus and should be scheduled three business days in advance of desired meeting time. Please take bus/driving time into consideration when scheduling your appointment time. Those students with prescheduled appointments will be served first.

## Architecture Program:

www.tcaup.umich.edu/architecture/about/the_program/

## Armenian Studies Program

1080 South University Avenue, Suite 2603
(734) 763-0622 (phone)
(734) 763-4918 (fax)
www.ii.umich.edu/asp
e-mail: armenianstudies@umich.edu
May be elected as an option in the major "Arabic, Armenian, Persian, Turkish, and Islamic Studies." See Near Eastern Studies departmental listing for further details.

The Armenian Studies Program at the University of Michigan, Ann Arbor, began in 1976 with the introduction of courses in the Western Armenian language and a survey of Armenian history. In 1981 the Alex Manoogian Chair in Modern Armenian History was established, thanks to the generous
gift of Mr. and Mrs. Alex Manoogian. Six years later, the Marie Manoogian Chair in Armenian Language and Literature was created, making the University of Michigan-Ann Arbor a major center of Armenian Studies in the United States. The activities of the program were enhanced by more recent gifts by the Manoogian family and others.

Courses taught by Professors Bardakjian and Libaridian constitute the core of this program. Instruction in Armenian studies is supplemented by courses offered by Professor Ronald Suny, the Charles Tilly Collegiate Professor of Social and Political History at the University of Michigan, as well as by post-doctoral fellows and visiting scholars in a variety of fields. In addition, the program offers graduate and post-doctoral fellowships and an extensive list of outreach activities such as public lectures, conferences, and workshops.

## Art \& Design

Penny W. Stamps School of Art \& Design (A\&D)
2038 Art \& Architecture Building
2000 Bonisteel Boulevard
(734) 764-0397 (phone)
(734) 936-0469 (fax)
stamps.umich.edu
email: a\&d@umich.edu
Professor Gunalan Nadarajan, Dean
The Penny W. Stamps School of Art \& Design (A\&D) offers (1) an innovative media-rich and intellectually challenging bachelor of fine arts (BFA) degree that integrates traditional techniques with contemporary technologies and provides extensive opportunities for exhibition, community engagement, and international study; and (2) a bachelor of arts (BA) in Art \& Design that provides a rigorous education in art and design with the flexibility of a liberal arts education..

Joint degree programs with LSA provide opportunities for students whose educational goals include undergraduate degrees in both LSA and A\&D [see "Art \& Design (Joint Program in Liberal Arts and Art \& Design)" on the LSA website.]

The Stamps School of Art \& Design offers dual admission to entering students who wish to pursue two degree programs.

Cross-Campus Transfer. The Stamps School of Art \& Design requires prospective joint degree and cross campus transfers to attend an info session, held twice each term. Interested students should call (734) 9360671 to find out the current schedule and reserve a seat. After attending an info session a student will be able to schedule the portfolio review (required for admission). Successful cross-campus applicants must have earned a cumulative GPA of 2.5 and at least 30 credits of coursework. Joint degree students will need a cumulative GPA of 3.0 and at least 30 credits of coursework.

## Minor in Art \& Design

The Stamps School of Art \& Design offers a minor in (studio) Art \& Design to provide non-majors with a more nuanced and sophisticated understanding of the creative processes and skills important to visual inquiry and communication. This minor is unique in that it adds making, hands-on material investigation and manipulation, to the academic skills of research and scholarship. By engaging in a structured process of conveying ideas and information through visual images and tangible forms, students who are not visual art and design majors gain a richer understanding of themselves and the world. They come to understand that there are many ways of seeing, many ways of addressing problems and expressing concerns, and many concepts that can be best communicated through visual means.

Students who wish to develop the skills emphasized in art and design classes - namely design principles and visual composition; envisioning what does not yet exist; constructing tangible solutions to complex, openended questions; tools and techniques relevant to a wide range of material processes, expressive agility; iterative idea development and prototyping; critical thinking and analysis of sensory experience; and collaborative effort - are one of the target audiences for the minor. Students who desire a cohesive program of study and greater expertise in a specific area of art or design, for example, graphic design, are also suited to the minor. Other students may wish to supplement their major with a minor that offers an approach different from those employed in the liberal arts. Some students may feel the want of sustained art and design practice in their education and seek to remedy that deficiency by pursuing a minor in some area of endeavor unrelated to the major, such as painting or illustration. Much as the major in Art \& Design does, the minor allows students flexibility in crafting their course of study while providing a framework that ensures the final product will have its own integrity.

## Class election

Declared minors cannot be guaranteed enrollment in a given Stamps School course, but are given preference in registration over students who have not declared the minor.

Classes marked with an $\left({ }^{*}\right)$ are defined as non-LSA, and count toward the limitations on non-LSA course work.

Advising. The Stamps School of Art \& Design is committed to providing the entire undergraduate student body in LSA with a compelling opportunity to understand, appreciate and create art and design more fully, through a well-directed program of study. Students who wish to earn the minor in art and design must work with an art \& design advisor to develop a coherent program of study based on the individual educational aspirations of the student. The Stamps academic advisor will consult with students enrolled in the minor to develop the focus of their plan of study. The assistant dean for undergraduate programs will exercise oversight of the minor and will certify each minor as complete. Peer advisors will provide supplemental and secondary advising assistance.

Smucker • Wagstaff Academic Programs Center
(734) 764-0397
web: stamps.umich.edu/undergraduate-current
e-mail: AskAnAdvisor@umich.edu

2038 Art and Architecture Building
2000 Bonisteel Boulevard
Appointments are scheduled online: stamps.genbook.com.
Exclusions. Majors in the Stamps School of Art \& Design may not enroll in the minor. The Stamps School of Art \& Design suggests that students in the Arts \& Ideas in the Humanities major in the Residential College and those students engaged in the American Culture minor in Digital Studies receive express written permission from those department before adding a minor in Art \& Design to ensure that the focus of the minor in Art \& Design is not redundant.

Prerequisites to the Minor. Select one course from either A or B, below.
A. Drawing courses. One of:

- ARTDES 100 Drawing I (observational) *
- ARTDES 105 Drawing II (ideational) *
B. Fundamental Dimensional courses. One of:
- ARTDES 115 Studio 2D (two-dimensional work) *
- ARTDES 120 Studio 3D (three-dimensional work)
- ARTDES 125 Studio 4D (time-based work) *

Requirements for the Minor. A minimum of 5 courses (and 15 credits), distributed as follows:
A. One additional course selected from the prerequisite choices (3 credits).

- Fundamental Dimensions. Students who took a drawing course as a prerequisite to the minor must select a dimensional course: ARTDES 115*, 120 or 125*.
- Drawing. Students who took a dimensional course as a prerequisite to the minor must select a drawing course: ARTDES $100^{*}$ or $105^{*}$.
B. Two studio courses at the $\mathbf{2 0 0}$ level (minimum of $\mathbf{6}$ credits).
- ARCH 211 Digital Drawing *
- ARCH 218 Visual Studies *
- ARTDES 200-219 *
- ARTDES 225-299 *
- MECHENG 250 Design and Manufacturing I *
- PAT 201 Introduction to Computer Music
- PAT 221 Computer Music *
- PAT 280 Sound Reinforcement *
- RCARTS 285 Photography
- RCARTS 286 Sculpture
- RCARTS 287 Printmaking
- RCARTS 289 Ceramics
- SAC 290 Introduction to Media Production
- THTREMUS 240 Introduction to Design
- THTREMUS 256 Lighting Design I
- THTREMUS 260 Scene Design I
- THTREMUS 270 Costume Design I
- UARTS 250 Creative Process
C. Capstone: One studio course at the 300 level (or higher, with approval of the assistant dean for undergraduate programs in the Stamps School of Art \& Design) (minimum of 3 credits).
- ADABRD 300-399 *
- ARCH 312 Architectural Design
- ARTDES 300-397 *
- PAT 331 Sound Recording I *
- PAT 380 Sound for Theatre *
- RCARTS 385 Interdisciplinary Photographic Applications
- RCARTS 389 Ceramics Theory and Criticism
- SAC 300 Dramatic Narrative I
- SAC 304 The Experimental Screen I
- SAC 306 New Media Practices I
- THTREMUS 356 Lighting Design II
- THTREMUS 360 Scene Design II
- THTREMUS 370 Costume Design II
D. Electives. A minimum of three credits selected from the following courses:
- ARTDES 130 Methods of Inquiry
- ARTDES 150 Art and Design in Context
- ARTDES 151 Art and Design History
- ARTDES 155 Intersections *
- ARTDES 160 Penny W. Stamps Lecture Series (3 iterations) *
- HISTART 271 Origins of Modernism: Art and Culture in Nineteenth Century France
- HISTART 272 Modern Art: Avant-Garde to Contemporary


## Residency Requirement

Transfer courses cannot be counted toward the minor without the approval of the assistant dean for undergraduate programs in the Stamps School.

## Constraints

Courses from other units within the University cannot be counted toward the minor without approval of the Assistant Dean.

With the exception of the foundation courses already mentioned as part of the minor, Stamps School 100-level courses may not be included in a program of study, because these courses do not progress beyond introductory instruction and so do not provide the level of rigor required by the minor.

# Asian Languages and Cultures (ALC) 

6111 South Thayer Building
202 South Thayer Street
(734) 764-8286 (phone)
(734) 647-0157 (fax)
www.Isa.umich.edu/asian
e-mail: um-alc@umich.edu
The department offers instruction in the languages, literatures, linguistics, and cultures of China, Japan, Korea, Tibet, South Asia, and Southeast Asia, including courses in traditional and modern Chinese and Japanese literature, Chinese, Japanese, and Korean civilization, Chinese philosophy, courses in the literatures and cultures of South and Southeast Asia, and a sequence of courses on the religions of China, Japan, Korea, Tibet, South and Southeast Asia. The department offers an undergraduate major in Asian Studies as well as minors in Asian Studies and Asian Languages and Cultures. Undergraduates are encouraged to consult departmental advisors about appropriate electives, about introducing an Asian component into a major focused in another department, as well as developing a plan of study leading to a major in Asian Studies.

The department's core courses in the modern languages of East, South and Southeast Asia are designed to develop proficiency in the basic skills of speaking, aural comprehension, reading, and writing. To speed students' progress toward a working knowledge of language, intensive work in Chinese and Japanese is usually offered during the summer (students must apply for admission to the summer program).
The faculty and staff in the department reserve the right to require students with previous background in an Asian language to take a placement test. Students will be placed in language classes according to the department's best assessment of the student's language skill and previous training. The department's first-year language courses are designed for students with minimal or no previous exposure to the language in question. Students having previous experience with a language may be required to begin study at a higher level of instruction.

Please Note: Undergraduates with native or near native ability in an Asian language taught in the department (e.g., Chinese or Japanese) should not use that language to fulfill the language requirements for their submajor if they decide to major in Asian Studies. For information on these language requirements, see the description of the major in Asian Studies below.

## Asian Studies

## May be elected as a departmental major

The major in Asian Studies offers students an opportunity to pursue interests in the traditional and modern civilizations of Asia. The particular courses to be counted toward the major will depend on the individual student's submajor. Students choose a submajor and then have the option to additionally focus on a field of study. An intellectually coherent combination of fields is permitted.

Submajors:
Chinese Studies
Japanese Studies
Korean Studies
South Asian Studies
Southeast Asian Studies

## Prerequisites to the Major

A. One year (or first-year proficiency) of an Asian language taught in the Department of Asian Languages and Cultures.
B. ASIAN 235. Introduction to Asian Studies.

Prerequisites to Declaration. ASIAN 235 must be completed before declaring the major.

## Requirements for the Major

Asian Studies Language Requirement for the Major. All majors must have fourth-term proficiency in an Asian language appropriate to their submajor. Majors are strongly encouraged to continue their language training beyond the second year requirement. This is particularly important, if not essential, for students contemplating a graduate program in an Asian field. These credits do not count toward the credits needed for the major.

Course Requirements. 30 credits at the 200-level and above, 15 of which must be at the 300 -level or above (At least 15 credits must be taken in residence at the University of Michigan.). The major is designed in consultation with, and approved by, a department advisor.
A. Submajor requirement. At least 15 credits in courses in the student's submajor (e.g., South Asian Studies). Students are encouraged to plan their submajor courses in relation to a field of study, if one has been chosen. Up to 10 credits from language courses at the 300 level or above may be counted toward the sub-major requirement. 5 credits or more must be taken in Asian Studies in the student's submajor; classical languages (Sanskrit, Classical Japanese, Classical Chinese, Javanese, Old Tibetan) may be used to satisfy this portion of the requirement.
B. Breadth requirement. [9 credits]
(1) ASIAN 381. Junior/Senior Research Seminar for Majors.

ASIAN 235 must be completed before electing this course.
(2) At least six credits from either or both of the following two categories:
(a). Courses exclusively focused on one of the submajors outside the student's chosen submajor (e.g., a student in the Korean Studies submajor could elect ASIAN 210, The Philippines: Culture and History), or
(b). Trans-regional courses focused on more than one of the submajors (which could include the student's submajor) (e.g., ASIAN 220, Introduction to the Study of Asian Religions, or ASIAN 367, Languages of Asia).
C. Cognate requirement. At least 6 credits elected outside the Department of Asian Languages and Cultures from either or both of the following categories:
(1). theory or methodology courses that are focused on either the student's chosen field of study or on a discipline complementary to the study of Asia (e.g., Statistics, Linguistics, Social Theory), or
(2). courses in the student's chosen submajor, but taken in a department other than Asian Languages and Cultures.

Advising. Appointments are scheduled on the department's online advising calendar. Please go to www.lsa.umich.edu/asian for more information. Students who have a formal or informal interest in Asian Studies are encouraged to consult a department advisor.

Honors Plan: Candidates for the Honors plan must complete all regular requirements for the major, and maintain a cumulative grade point average of at least 3.4 and at least 3.5 in courses elected as part of the major. They must also demonstrate the ability to do original work by writing an Honors thesis and must elect the appropriate Honors course(s). Recommendations for the designation of "Honors," "High Honors," and "Highest Honors" in Asian Studies are made on the basis of the student's performance in departmental Honors courses and the quality of the student's Honors thesis.

## Minors in Asian Languages and Cultures

Students wishing to pursue a minor in the Department of Asian Languages and Cultures must develop a specific plan for its completion in consultation with a department advisor. Appointments are scheduled in the department.

## Asian Languages and Cultures

A minor in Asian Languages and Cultures is not open to students with another minor in the Department of Asian Languages and Cultures

The minor in Asian Languages and Cultures provides a means for majors in other departments to add to their undergraduate program a substantial and structured course of study in an Asian language, combined with a number of courses focused upon Asian culture. The minor offers guidance to students who want to acquire usable language skills and insures that the study of language is grounded in knowledge about the larger culture in which the language is historically produced and used. Undergraduates minoring in ALC will be equipped with specific linguistic capabilities and cultural knowledge they can apply to their inquiries within other disciplinary major. The minor can be elected in conjunction with any of the languages taught through the third year in ALC.

Prerequisites to the Minor: Two years (fourth-term proficiency) in an Asian Language.

Requirements for the Minor: At least 15 credits, chosen in consultation with and approved by a department advisor, in the following categories, as stated:

1. Two terms of an Asian language, taught in the Department of Asian Languages and Cultures, at the third-year level or above.
2. Asian Studies: At least two courses on Asian culture that will familiarize the student with the contexts of the language the student has studied; one of these courses must be at the 300-level or above.

## Asian Studies

A minor in Asian Studies is not open to students with a major in Asian Studies or other minor in the Department of Asian Languages and Cultures.

The minor in Asian Studies allows majors in other departments to undertake a guided and coherent program in Asian Studies when extensive coursework in an Asian language is impractical for them. In contrast to the Asian Studies major, as well as the minor in Asian Languages and Cultures, this minor does not contain a language component, it is designed to give students the opportunity to plan a structured and articulated series of courses that will result in an intellectual engagement with the culture of at least one Asian region.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 non-language credits chosen in consultation with and approved by a department advisor.

At least three courses in Asian Studies offered though ALC within one of the regional areas: Chinese Studies, Japanese Studies, Korean Studies, South Asian Studies, or Southeast Asian Studies. Two courses must be elected at the 300-level or above.

A minor plan may also be organized around disciplines or lines of inquiry not necessarily defined by a region in consultation with and approved by a department advisor.

Twelve of the credits counted toward the minor must be elected at the University of Michigan or at an overseas program associated with U-M.

At least six of the credits must be elected at the University of Michigan or through an overseas program associated with the U-M.

## Astronomy

311 West Hall
1085 South University
(734) 764-3440 (phone)
(734) 763-6317 (fax)
www.astro.Isa.umich.edu
Will the universe expand forever? Is there life on other planets? How do stars form, live, and die? These are some of the exciting questions confronting astronomers in the twenty-first century. Because of the aweinspiring immensity of the subject, the study of astronomy has a strong fascination - poetic, philosophical, speculative - for many individuals. In the modern observatory, however, the urge to understand and discover what is happening in the universe finds expression in the scientific pursuit of the subject. To explore the dynamics of colliding galaxies and of interstellar gas in galaxies, to find the compositions of chemically peculiar stars and supernovae remnants, to explain radio-galaxy variations and atomic emissions of quasars - some of the active areas in the Michigan Department of Astronomy - requires patience and dedication, together with the curiosity and talent characteristic of all scientists.

The Astronomy curriculum is useful to students seeking a general knowledge of astronomy as part of a liberal arts education as well as to those preparing for a professional career in the field. The introductory sequences provide an understanding of the structure and evolution of the universe, introduce basic concepts of science, and acquaint students with scientific methods. These introductory courses (ASTRO 101 and 102; 104; 115; 130; 201) both stimulate and satisfy intellectual curiosity and lay the foundation for advanced work.

The Astronomy and Astrophysics major and the Interdisciplinary Astronomy major require the same core courses, but whereas Astronomy and Astrophysics majors are required to take several upper-level physics courses, the Interdisciplinary Physics majors take their cognate program instead.

Astronomy has been pursued at the University of Michigan since 1856, and the historic Detroit Observatory still stands in its original location on Observatory Street as a reminder of the department's longevity, although astronomical research is no longer performed there. The department operates a planetarium, undergraduate laboratories, and small telescopes located on the top floor of Angell Hall. It operates four research telescopes at three different sites: a 26 meter Radio Observatory located minutes away from campus, a 0.6 meter Curtis Schmidt telescope on Cerro Tololo, Chile, and two telescopes of 1.3 and 2.4 meter aperture at MDM (Michigan-Dartmouth-MIT) Observatory located on Kitt Peak near Tucson, Arizona. Graduate students have access to all of these instruments.

Student Astronomical Society (SAS). SAS provides a forum, primarily for undergraduate students, where they can learn about the astronomical profession. To further this end SAS holds regular meetings, sponsors lectures, provides tutoring in Astronomy classes, participates in Inreach/Outreach programs for local primary and secondary school students, and holds Public Viewing Nights at the Angell Hall Observatory.

Honors Research Tutorials. Students participating in the Honors Science Program may elect HONORS 291 and 292 through the Astronomy Department during the sophomore year. Professor Bergin assigns students on the basis of interests and background to participating staff members.

## Astronomy \& Astrophysics

May be elected as a departmental major; not open to those with a major in Interdisciplinary Astronomy

## Effective Fall 2016 3/18/2016

The major in Astronomy and Astrophysics is offered to students wishing to develop a comprehensive, physical understanding of astronomy, and is appropriate for students planning graduate studies in astronomy and related fields.

## Prerequisites to the Major

1. Mathematics through MATH 216
2. PHYSICS 160/161 [or PHYSICS 140/141 and one of EECS 183, ENGR 101, or an equivalent computing course approved by the Astronomy department advisor]
3. PHYSICS $240 / 241$ or $260 / 261$
4. PHYSICS 340 or 360

Requirements for the Major. A minimum of 36 credits, distributed as follows:

1. Astronomy Core:

ASTRO 201, 361, 399, 402, 404, and 429
2. Physics Core:

PHYSICS 390, 401, 405, 453
3. Quantitative Techniques:

One of: PHYSICS 351 or 411
4. Astronomy Electives:

Two of: ASTRO 403, 405, 406, 461, or by permission of instructor, a
500-level ASTRO course.
Students are urged to complete the requirements in physics and mathematics as soon as possible. Students planning graduate work might benefit from knowledge of Spanish, but this is not essential.

Honors Plan. Students who are interested in scholarly research in astronomy and have a cumulative grade point average of 3.5 are encouraged to consider Honors plan. Students with a lower GPA may be admitted to the program at the discretion of the department advisor. The program requires writing a senior Honors thesis based on research done in collaboration with a faculty member. Interested students should consult with the department advisor by the beginning of their junior year.

Advising. The department advisor is Professor Bergin. Information about scheduling advising appointments is available from the department office.

## Interdisciplinary Astronomy (B.A. or B.S.)

May be elected as a departmental major; not open to those with a major in Astronomy and Astrophysics.

The major in Interdisciplinary Astronomy is offered to students wishing to develop a substantive expertise in astronomy, a practical understanding of science, and a basic ability to communicate science to the public. This major offers the opportunity to include contextual understanding of astronomy with respect to history, philosophy of science, and geoscience.

## Prerequisites to the Major.

1. MATH 115,116 , and 215
2. PHYSICS 140/141 [or PHYSICS $160 / 161$ or $135 / 136$ ]
3. PHYSICS $240 / 241$ [or PHYSICS $260 / 261$ or $235 / 236$ ]
4. PHYSICS 340/341 [or PHYSICS 360/341]

## Requirements for the Major.

A minimum of 31 credits, distributed as follows:

1. Astronomy Core: ASTRO 201, 361
2. Astronomy Electives. At least six credits from: ASTRO 402, 403, 404, 405, 406, or 461.
3. ULWR: ASTRO 429 or ULWR of cognate plan
4. Cognates. A minimum of 15 credits of cognate courses as part of an interdisciplinary plan designed with the approval of the department advisor.

Advising. Information about scheduling advising appointments is available from the Department office.

## Minors in Astronomy

The minors in Astronomy are not open to students with a major in Department of Astronomy.

Students wishing to pursue a minor in the Department of Astronomy must develop a specific plan for its completion in consultation with the department's designated advisor. Information about scheduling advising appointments is available from the department office.

## Astronomy \& Astrophysics

## Effective Fall 2016 3/18/2016

The minor in Astronomy and Astrophysics is offered to students with a strong background in physics and math, who wish to develop a deep expertise in astronomy.

Students with a science, math, or engineering major can often incorporate the added dimension of a minor in Astronomy and Astrophysics with only a few additional courses if their degrees already require a significant background in physics.

## Prerequisites to the Minor:

1. Mathematics through differential equations: MATH 216 or its equivalent
2. PHYSICS 140/141, 240/241, and 340.

Requirements for the Minor: At least 15 credits of courses to be selected from the following categories as stated:

1. Introductory Course: ASTRO 201
2. Astronomy Core Courses: at least two courses chosen from among: ASTRO 361, 402, 404.
3. Astronomy Electives: Remaining credits can be selected from ASTRO 399 and ASTRO 400-level courses not already taken as Astronomy core.

## Interdisciplinary Astronomy

## Effective Fall 2016 3/18/2016

The minor in Interdisciplinary Astronomy is offered to students wishing to develop a broad overview of astronomy and understanding of science.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses to be selected from the following categories as stated:

1. Stellar and Planetary Astrophysics: ASTRO 101 or 115
2. Galactic and Extragalactic Astrophysics: ASTRO 102, 104, 105, or 142
3. Astronomy Electives: Six credits from ASTRO 200-level courses
4. Cognate: Three credits from a 300 or 400 -level interdisciplinary course selected with approval of department advisor.

Students are encouraged to take introductory Physics courses in their earlier course of study.

## Biological Chemistry

Biological Chemistry
U-M Medical School
5301 Medical Science Research Building III, Box 5606
1150 West Medical Center Drive
(734) 764-8584 (phone)
(734) 763-4581 (fax)
medicine.umich.edu/dept/biological-chemistry/
e-mail: umbiochem@umich.edu
The Department of Biological Chemistry is a participating unit in the interdepartmental Biochemistry major listed under Chemistry.

## Biological Station

Campus Address
(September - April)
2541 Chemistry Building
930 North University Avenue
Ann Arbor, MI 48109-1055
(734) 763-4461 (phone)
(734) 647-1952 (fax)

Douglas Lake Address<br>(May - August)<br>9133 Biological Road<br>Pellston, MI 49769-9133<br>(231) 539-8408 (phone)<br>(231) 539-8785 (fax)

www.Isa.umich.edu/umbs
e-mail: umbs@umich.edu

## The U-M Biological Station Coursework and Community

The University of Michigan Biological Station (UMBS), founded in 1909, is one of the world's finest inland field stations for education and research in biological and environmental sciences. Surrounded by coniferous and deciduous forests, the Biological Station occupies a 10,000-acre tract between Burt and Douglas Lakes in lower Northern Michigan. Located in the transition zone between coniferous forests to the north and deciduous forests to the south, it is surrounded by a remarkable variety of natural communities. It is an ideal setting for studying topics related to the natural environment.

The UMBS curriculum focuses on ecology, systematics, field biology, and environmental studies, and courses are taught during Spring and Summer half terms. Two courses of college biology are typically required for admission to UMBS courses, all of which are either upper level or graduate level. The station serves as a tight-knit community, where students, faculty, and researchers interact on a daily basis in classrooms, laboratories, at meal tables, and at various recreational activities. Many past participants call their time living and studying at the Biological Station a truly magical and life-changing experience.

The Biological Station offers students and faculty an opportunity to study together the biota of the regions with a full appreciation of the dynamics of the natural systems involved. The small community of students, faculty, and scientists shares knowledge during meal and recreation times as well as in the classroom, field, and laboratory..

Formal coursework is offered in both a four-week spring term and an eightweek summer term. Classes are taught by the Station's dedicated faculty, who concurrently carry out their own research projects. Enrolled students typically earn 5 credits in the spring and 10 credits in the summer, taking courses in all aspects of field biology such as limnology, entomology, parasitology, mammalogy, general ecology, evolution, ornithology, phycology, ichthyology, and terrestrial and aquatic sciences. Each formal course occupies the entire days assigned to it. Field work is supported by modern equipment, vehicles, boats, laboratories, and a fine library. Field work is supported by modern equipment, vehicles, boats, laboratories, and a library. There are typically about 150 students per season in these courses.

Be sure to request the most recent copy of the UMBS Bulletin for a complete list of courses.

Majors in Biology or General Biology. It is recommended that students with majors in Biology or General Biology give serious consideration to spending a summer at a field station, especially the University of Michigan Biological Station. The training and experience provided are particularly valuable for students interested in ecology, systematics, animal behavior, and evolutionary biology.

Many courses offered at the Biological Station can be used as part of a major in Biology or Plant Biology with approval from a department advisor.

## Program in Biology

1140 Undergraduate Science Building
204 Washtenaw Avenue
(734) 763-7984 (phone)
(734) 647-7892 (fax)
www.Isa.umich.edu/biology
Biology is an Interdepartmental Program administered jointly by the Department of Ecology and Evolutionary Biology (EEB) and the Department of Molecular, Cellular, and Developmental Biology (MCDB).

Majors and Minors. The Biology Program administers majors in Biology, General Biology, and Plant Biology and it administers minors in Biology and Plant Biology. Information on the Cell and Molecular Biology (CMB) major and the EEB major and minor is located under the listings for the Department of MCDB (CMB majors) or the Department of EEB (EEB major and minor).

Students interested in concentrating in Biology, General Biology, or Plant Biology must complete BIOLOGY 171, 172/174 and 173, or BIOLOGY 195 and 173, or equivalent.

Advising. Students are advised by a combination of Undergraduate Biology Office staff and faculty department advisors. Advising topics include investigating majors, declaring a major, course planning, research and honors, major releases, graduate school and career advice. Students who are interested in the Program in Biology majors or minors should consult a general advisor during the freshman year, and are strongly encouraged to meet with a department advisor early in their academic career, but no later than the second term of their sophomore year. It is not necessary to complete every prerequisite before declaring a major. To make an appointment, go to the Program in Biology website at www.lsa.umich.edu/biology/.

Teaching Certificate. Students interested in obtaining a secondary teaching certificate with a teaching major or minor in Biology should consult the "Teacher Certification Program" section and the School of Education Teacher Education office.

Major GPA Calculation. For purposes of calculating grade point average, the term "field of the major" (for all majors) means the following:

1. All BIOLOGY, EEB, MCDB, and Biological Station courses, including cross-listed ones, at the 200-level and above.
2. All required cognate courses (if any).
3. All mandatory prerequisites.

## Biology

May be elected as an interdepartmental major
Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)
Exclusions: Students who elect a major in Biology may not elect the following majors: General Biology; Cell and Molecular Biology; Ecology and Evolutionary Biology; Microbiology; Plant Biology; Biochemistry; Biomolecular Science, or Neuroscience. They may also not elect a minor in Biology; Ecology and Evolutionary Biology; Plant Biology; Chemistry; or Biochemistry.

This major develops an appreciation of the levels of organization of life, its diversity, and the processes by which life has achieved its present forms. The program is recommended for those who wish to study biology as part of a liberal education, to prepare for a teaching career in secondary schools, or to prepare for graduate study in biology or the health professions.

## Prerequisites to the Major

- BIOLOGY 171, 172/174, and 173; or BIOLOGY 195 and 173
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241
- CHEM 210/211 and 215/216;
- Quantitative Analysis 1: One of MATH 115, 120, 175, 185, or 295
- Quantitative Analysis 2: One of
o BIOLOGY 202
o MATH 116, 121, 156 (retroactive to Fall 2008), 255, 176, 186, or 296
o STATS 250; 400-level or above
o BIOPHYS 290 / PHYSICS 290
o EECS 203 or 280
o EARTH 468
o Any other course with a MATH 115 prerequisite chosen in consultation with a major advisor
[Note: any course used to meet this requirement cannot also be used as a major elective, i.e., a course cannot "double count".]
Requirements for the Major. 30 credits distributed as follows. At least 3 courses must be laboratory or field courses beyond the introductory level
A. Laboratory or Field Courses in Biology Requirement (This requirement overlaps with other requirements): At least three courses beyond the introductory level. Library "research" and introductory biology laboratories do not qualify.
Three credits of independent research must be completed in one term to satisfy a laboratory requirement.
A maximum of three credits of independent research (EEB 300 or 400, or MCDB 300 or 400), under the direct supervision of a faculty member, or, under a faculty member of another University of Michigan department with an EEB or MCDB faculty co-sponsor, may be used as one of the laboratory experiences.
A maximum of three credits of any independent study course may count toward the major.


## B. Other Requirements

1. Select at least one course from each of two groups I-II. (See Course Listings I-II for the available courses in each group.) Students should enroll in these courses as early as possible.
I. Molecular, Cellular, and Developmental Biology:
BIOLOGY 205
(3) Developmental Biology
BIOLOGY 207* (4) Introductory Microbiology
BIOLOGY 225
(3) Animal Physiology
BIOLOGY 230*
(4) Introduction to Plant Biology

Note: Students taking BIOLOGY 225 also are encouraged to take BIOLOGY 226* - Animal Physiology Laboratory (2 credits).
II. Ecology, Evolution, and Organismal Biology:
BIOLOGY 230*
(4) Introduction to Plant Biology
BIOLOGY 252* (4) Chordate Anatomy/Phylogeny
BIOLOGY 255*
(4) Plant Diversity
BIOLOGY 256.
(4) Animals Functioning in Environments
BIOLOGY 281
(3) General Ecology
BIOLOGY 288*
(4) Animal Diversity
BIOLOGY 381*
(5) General Ecology (SU at U-M Biological Station)

Note: Students taking BIOLOGY 281 also are encouraged to take EEB 372* - General Ecology Lab (3 credits).

An asterisk $\left({ }^{*}\right)$ indicates a laboratory course or a lecture course with a laboratory component

## 2. Required courses in genetics, biochemistry, and evolution:

(a). Genetics: BIOLOGY 305;
(b). Biochemistry: one of MCDB 310 or BIOLCHEM 415 or CHEM 351
(c). Evolution: EEB 390 or 391 or 392* (effective Winter 2016, retroactive to Fall 2008).

## 3. Electives and Cognates

I. Select one course in EEB or MCDB at the 300- or 400-level
II. Select additional BIOLOGY, EEB, or MCDB courses at the 200-level or above to bring the credit total for the major to at least 30 credits.

Two advisor-approved cognate courses may be used.
Exclusions: EEB 301, 302, 399, 499, 800, MCDB 301, 399, 302, 412, 499, 800.

## General Biology

May be elected as an interdepartmental major

## Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)

Exclusions: Students who elect a major in General Biology may not elect the following majors: Biology; Cell and Molecular Biology; Ecology and Evolutionary Biology; Microbiology; Plant Biology; Biochemistry; Biomolecular Science, or Neuroscience. They may also not elect a minor in Biology; Ecology and Evolutionary Biology; Plant Biology; Chemistry; or Biochemistry.

General Biology has many of the same aims as Biology, but it is not recommended for students who wish to pursue graduate work in biology. It is an appropriate preprofessional major. It differs from Biology in that it requires fewer credits, less laboratory work, and has more breadth, particularly in the form of a non-science cognate course (see below).

## Prerequisites to the Major

- BIOLOGY 171, 172/174 and 173; or BIOLOGY 195 and 173
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or
PHYSICS 140/141 and 240/241.
- CHEM 210/211 and 215/216;
- Quantitative Analysis 1: MATH 115, 120, 175, 185, or 295
- Quantitative Analysis 2: One of
o BIOLOGY 202
o MATH 116, 121, 156 (retroactive to Fall 2008), 255, 176, 186, or 296
o STATS 250; 400-level or above
o BIOPHYS 290 / PHYSICS 290
o EECS 203 or 280
o EARTH 468
o Any other course with a MATH 115 prerequisite chosen in consultation with a major advisor
[Note: any course used to meet this requirement cannot also be used as a major elective, i.e., a course cannot "double count".]Requirements for the Major. 24 credits in biology and cognate fields, including:

1. Select at least one course from each of two groups I-II. (See Course Listings I-II for the available courses in each group.) Students should enroll in these courses as early as possible.
I. Molecular, Cellular, and Developmental Biology:

BIOLOGY 205 (3) Developmental Biology
BIOLOGY 207* (4) Introductory Microbiology
BIOLOGY 225 (3) Animal Physiology
BIOLOGY 230 (4) Introduction to Plant Biology
Note: Students taking BIOLOGY 225 also are encouraged to take BIOLOGY 226* - Animal Physiology Laboratory (2 credits).
II. Ecology, Evolution, and Organismal Biology:

BIOLOGY 230* (4) Introduction to Plant Biology
BIOLOGY 252* (4) Vertebrate Evolution and Diversity
BIOLOGY 255* (4) Plant Diversity
BIOLOGY 256 (4) Animals Functioning in Environments
BIOLOGY 281 (3) General Ecology
BIOLOGY 288* (4) Animal Diversity
BIOLOGY 381*
(5) General Ecology (SU at U-M Biological Station)

Note: Students taking BIOLOGY 281 also are encouraged to take EEB 372* - General Ecology Lab (3 credits).

An asterisk (*) indicates a laboratory course or a lecture course with a laboratory component
2. Required courses in genetics, biochemistry, and evolution:
(a). Genetics: BIOLOGY 305;
(b). Biochemistry: one of MCDB 310 or BIOLCHEM 415 or CHEM 351;
(c). Evolution: EEB 390 or 391 or 392* (effective Winter 2016, retroactive to Fall 2008).
3. Two laboratory or field courses in biology beyond the introductory level. Library "research" and introductory biology laboratories do not qualify. A maximum of three credits of independent research (EEB 300 or 400 , or MCDB 300 or 400 ), under the direct supervision of a faculty member, or, under a faculty member of another University of Michigan department with an EEB or MCDB faculty co-sponsor, may be used as one of the laboratory experiences. Three credits of independent research must be completed in one term to satisfy a laboratory requirement. A maximum of three credits of any independent study course may count toward the major.
4. One cognate course from the following list: (Note: This list, which is put together by the Biology Program Steering Committee, includes courses offered by non-natural science units that treat biology or natural science generally in the humanistic or social context. These are not science courses, but courses that treat science or scientific issues from a historical, cultural, ethical, or political perspective.)

- ANTHRCUL 344 - Medical Anthropology
- BIOLOGY 241 - Health, Biology, and Society: What is Cancer?
- ENVIRON 256 / ANTHRCUL 256 - Culture, Adaptation, and Environment
- ENVIRON 270 - Our Common Future: Ecology, Economics, and Ethics of Sustainable Development
- PHIL 356 - Issues in Bioethics
- PHIL 381 - Science \& Objectivity
- PHIL 420 - Philosophy of Science
- PHIL 425 - Philosophy of Biology
- RCNSCI 263 - Energy and the Environment
- RCNSCI 270 - New Biotechnology: Scientific, Social, and Historical Perspectives
- RCSSCI 275 / HISTORY 285 - Science, Technology, Medicine, and Society
- SOC 330 - Population Problems
- WOMENSTD 220 - Perspectives in Women's Health
- WOMENSTD 300 - Men's Health

5. Select additional Biology, EEB, or MCDB courses at the 200-level or above (except EEB/MCDB 301, EEB/MCDB 302, EEB/MCDB 800, or MCDB 412 or BIOLOGY 241) to bring the major total to at least 24 credit.

Advising. To make an advising appointment, go to the Program in Biology website at www.Isa.umich.edu/biology/.

## Plant Biology

May be elected as an interdepartmental major

## Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)

Exclusions: Students who elect a major in Plant Biology may not elect the following majors: Biology, General Biology; Cell and Molecular Biology; Ecology and Evolutionary Biology; Microbiology; or Neuroscience. They may also not elect a minor in Biology; Ecology and Evolutionary Biology; Plant Biology; Chemistry; or Biochemistry.

The Plant Biology major provides undergraduates with training in those areas of science that are essential to an understanding of modern plant sciences. Like the Biology major, this major deals with all of the major
levels of biological organization (molecular, cellular, organismal, ecological, and evolutionary), but differs from the Biology major by its greater emphasis on the biology of plants. This program is well suited for those who wish to study biology as part of a liberal education, or to prepare for a teaching career in secondary schools. It also provides excellent preparation for graduate study in basic and applied areas of the plant sciences and related fields, such as ecology, genetics, microbiology, and biochemistry.

## Prerequisites to the Major

- BIOLOGY 171, 172/174, and 173; or BIOLOGY 195 and 173; or BIOLOGY 162 or 163;
- PHYSICS 125/127 and 126/128; or PHYSICS $135 / 136$ and $235 / 236$; or PHYSICS 140/141 and 240/241
- CHEM 210/211 and 215/216
- Quantitative Analysis 1: MATH 115, 120, 175, 185, or 295
- Quantitative Analysis 2: One of
o BIOLOGY 202
o MATH 116, 121, 156 (retroactive to Fall 2008), 255, 176, 186, or 296
o STATS 250; 400-level or above
o BIOPHYS 290 / PHYSICS 290
o EECS 203 or 280
o EARTH 468
o Any other course with a MATH 115 prerequisite chosen in consultation with a major advisor
[Note: any course used to meet this requirement cannot also be used as a major elective, i.e., a course cannot "double count".]
Requirements for the Major. A minimum of 30 credits (Students who took BIOLOGY 162 or 163, or have AP credit for BIOLOGY 162 must take 33 credits), including:

1. General Courses. Choose at least three of the following four courses (* indicates lab courses):
a. Genetics: BIOLOGY 305.
b. Biochemistry: one of MCDB 310 or BIOLCHEM 415 or CHEM 351 .
c. Evolution: EEB 390 or 391 or 392.
d. Ecology: BIOLOGY 281 [or EEB 381*].
2. Required Plant Biology Courses:
a. Plant Biology: BIOLOGY 230*;
b. Plant Diversity: BIOLOGY 255* [EEB 436* may be substituted];
c. Plant Physiology: MCDB 321.
3. Choose at least two plant biology elective courses from: EEB 401 (appropriate section), 420, 436*, 455*, 457*, 459*, 463*, 472, 489*; MCDB 401 (when topic is appropriate), 405, 430, 433; at least one of these must be a lab course (indicated by ${ }^{*}$ ). Three credits of EEB $300 / 400$ or MCDB 300/400 can be included as one of these elective courses, and will count for laboratory credit as well, as long as the research is conducted in a plant biology research lab. Only three credits (total) of independent research credits may count toward the major. "Library research" and introductory biology laboratories do not qualify.
4. Additional BIOLOGY, EEB, or MCDB courses at the 200-level or above (except: BIOLOGY 200, 241, 262; EEB 301, 302, 800; MCDB 301, 302, 412,800 ) to bring the credit total for the major to at least 30 credits ( 33 credits for students who took BIOLOGY 162 or 163, or have AP credit for BIOLOGY 162). One cognate course may be used here (e.g., advanced math, chemistry, physics courses; STATS 400; BIOSTAT 503) with advisor approval. You are strongly encouraged to elect at least two credits of independent research and to enroll for a summer session at the Biological Station. The fourth course, from the required general courses listed in the first category (above) may also be taken and will count as an elective in this category.

Advising. To make an advising appointment, go to the Program in Biology website at www.Isa.umich.edu/biology/.

## Honors Program

The Honors Program trains students to conduct independent research in Biology. In addition to completing all the requirements for the Biology major, an Honors degree requires a GPA in the major of at least 3.4, and the completion of a significant piece of independent research that is reported in an Honors thesis and presented in a public forum.

Admission to the Honors Program. It is recommended that students discuss the Honors Program with a department advisor early in their undergraduate career, and to meet with a department advisor to declare their Honors no later than six months prior to submission of the thesis.

## The Honors Program

1. Research. The student must identify a research mentor, preferably by the end of the sophomore year. The research mentor can be a member of the Departments of EEB or MCDB, or a life scientist holding a faculty appointment in another unit of the University, such as the Medical School or the School of Public Health. If the mentor is not a member of the EEB or MCDB Departments, the student must also identify a cosponsor from within the EEB or MCDB Departments.

Students are encouraged to register for independent research (EEB 300 or 400 , or MCDB 300 or 400 ) for at least two terms; most students register for three or four terms of independent research. Students working in labs outside of EEB or MCDB will usually register for EEB or MCDB 300 and 400 through their co-sponsor's independent study number. It is permitted, however, to use the independent study number of another department if the co-sponsor approves it.

It is highly recommended that students arrange to work full time on their Honors thesis during the summer between their junior and senior years. A limited amount of funds are available from university fellowships, so in most cases, support will have to come from the sponsoring lab. For students working in areas of field biology, it is often necessary to arrange for two field seasons to complete a project. For this reason, students working on field-based topics are urged to contact faculty about the possibility of starting work during the summer between their sophomore and junior years.
2. Readers. Prior to submitting the thesis, the student should identify three readers for the thesis, one of whom is the sponsor. At least two readers must be faculty members of the Departments of EEB or MCDB, unless the student receives the written approval of the Biology Honors Committee for an exception. Readers must agree to turn in their evaluations within ten days after the thesis is submitted.
3. The Honors Thesis. The thesis will be due on April 1, August 1, or December 1, depending on the anticipated graduation date. Based on the material presented in the Honors thesis and the student's overall record, the readers of the thesis will recommend a rating of "No Honors," "Honors," "High Honors," or "Highest Honors." Readers of Honors theses are expected to file their reports with the Biology Program Honors Committee within ten days after the thesis is submitted. The reports of all readers should address the quality of the science reported in the thesis, as well as the quality of the written presentation. The report of the mentor should also address the role the student played in the design, execution, and interpretation of the experiments reported in the thesis, and should point out the role that others in the lab played.

The Biology Program Honors Committee will meet approximately two weeks after the due date of theses to review the recommendations of the readers and decide on the appropriate level of Honors. The committee will attempt to maintain uniform standards for Honors and is not constrained by the level of Honors recommended by the readers. The Honors Committee may decide to table discussion and request the student to revise the thesis if they believe that a revised version might merit a higher rating.
4. Oral Presentation. The student will present the research results in an advertised public forum, such as a class, poster session, or a departmental seminar. The mentor will declare in the thesis evaluation letter when and where the student has made such a presentation.

## Minors in the Program in Biology

## Biology

Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)

## Updated 11/14/2015 - effective Winter 2016

The minor in Biology offers students a coherent program of study and training in the biological sciences. It provides exposure to the fundamental principles of biology, including studies of the structure, organization, and diversity of life. The minor is well suited for students who wish to pursue a career that requires an understanding and appreciation of the life sciences, though it is not intended for students interested in graduate work in biology.

Exclusions: Students who elect a minor in Biology may not elect the following majors: Biology, General Biology, Plant Biology, Ecology and Evolutionary Biology, Cell \& Molecular Biology, Microbiology, Neuroscience, or Biochemistry. They may also not elect a minor in Environmental Studies, Plant Biology, Ecology and Evolutionary Biology, or Global Change.

The minor in Biology is not intended for students interested in graduate work in the biological sciences.

Prerequisites to the Minor. BIOLOGY 171, 172/174 and 173; or BIOLOGY 195 and 173; or BIOLOGY 162 or 163.

Minor Program. Five courses totaling at least 15 credits in Biology at the 200-level and above, distributed as follows:

1. Two courses chosen from among:

- Ecology: BIOLOGY 281
- Genetics: BIOLOGY 305
- Biochemistry: choose one course from
o MCDB 310
o BIOLCHEM 415
o CHEM 351
- Evolution: EEB 390 or 392* (effective Winter 2016, retroactive to Fall 2008).

2. One laboratory or field course in BIOLOGY, EEB, or MCDB at the 200level or above (EEB 300 or 400, or MCDB 300 or 400, independent study, elected for a minimum of 3 credits, may be used as the laboratory course. [Three credits of independent research must be completed in one term to satisfy a laboratory requirement.]).
3. One additional BIOLOGY, EEB, or MCDB course at the 300-level or above except for:

- EEB 301
- EEB 302
- EEB 399
- EEB 499
- EEB 800
- MCDB 301
- MCDB 302
- MCDB 399
- MCDB 412
- MCDB 499
- MCDB 800

A third course from Group One not used to satisfy Group One requirements may be used to satisfy this requirement.
4. Elective courses in BIOLOGY, EEB, or MCDB to bring minor credits to at least 15 (may not include BIOLOGY 241, EEB 800 or MCDB 800))

## Plant Biology

## Updated 11/14/2015 - effective Winter 2016

A minor in Plant Biology provides undergraduates with exposure to several areas of science that are essential to an understanding of modern Botany. This program is well suited for those who wish to study plant biology as part of a liberal arts education, to prepare for a teaching career in secondary schools, as additional breadth for pre-professional students, or who simply have an interest in learning more about plants. It is not intended to provide preparation for graduate study in basic and applied areas of the plant sciences and related fields, such as ecology, microbiology, and biochemistry.

Exclusions: Students who elect a minor in Plant Biology may not elect the following majors: Biology, General Biology, Plant Biology, Ecology and Evolutionary Biology, Cell \& Molecular Biology, Microbiology, Neuroscience, or Biochemistry. They may also not elect a minor in Environmental Studies, Biology, Ecology and Evolutionary Biology, or Global Change.

The minor in Plant Biology is not recommended for students interested in graduate work in the biological sciences.

Prerequisites to the Minor. BIOLOGY 171, 172/174, and 173; or BIOLOGY 195 and 173

Minor Program. A minimum of 15 credits in Ecology and Evolutionary (EEB), Molecular, Cellular and Developmental Biology (MCDB) or Program in Biology (BIOLOGY) at the 200-level or above (Students who took BIOLOGY 162 or 163, or have AP credit for BIOLOGY 162 must take 17 credits), distributed as follows:

1. Core courses in ecology, evolution, biochemistry, and genetics. Choose two courses from the following:
(a). Ecology: BIOLOGY 281 [or EEB 381 at the University of Michigan Biological Station (UMBS)]
(b). Evolution: EEB 390, offered in Ann Arbor or at the UMBS; or EEB 392 (effective Winter 2016, retroactive to Fall 2008)
(c). Genetics: BIOLOGY 305
(d). Biochemistry: MCDB 310 or BIOLCHEM 415.

## 2. Plant Biology

(a). Plant Biology Core. Select one course from the following list

- Plant Biology: BIOLOGY 230*
- Plant Diversity: BIOLOGY 255*
- Plant Physiology: MCDB 321
(b). Plant Biology Electives. Select additional electives from the following list of courses encompassing plant ecology, biodiversity, evolution, structure and development, and physiology, to bring credit total to at least 15(17).
- BIOLOGY 230*, 255*
- EEB 372*, 401, 412, 420, 436*, 459*, 463*
- MCDB 321, 401 (when topic is appropriate), 405,430

At least one course must be a 300 -or 400 -level course.
At least one lab course or course including a lab must be included (* indicates lab course or course including a lab).

May not include BIOLOGY 241, EEB 800 or MCDB 800
Advising. To make an advising appointment, go to the Program in Biology website at www.lsa.umich.edu/biology/

## Program in Biophysics

4028 Chemistry Building
930 North University Avenue
(734) 763-6722 (phone)
(734) 764-3323 (fax)
www.Isa.umich.edu/biophysics
e-mail: biophysics@umich.edu
The goal of the biophysical sciences is to develop a quantitative understanding of the living world. They rely on the principles of physics, chemistry and biology, and find applications in medicine and engineering. The biophysical sciences range in scope from modeling biomolecular function to understanding cellular mechanics or brain function through the rigorous use of physical methods and concepts.

Research in Biophysics is highly interdisciplinary with strong ties to other disciplines in the natural sciences, the Medical School, and engineering. Students have the opportunity to participate in this kind of research through Independent Study and Thesis courses and dedicated summer programs.

Advising. The Program in Biophysics currently offers a B.S. degree in Biophysics and a minor in Biophysics. Students interested in either option are strongly encouraged to schedule an advising appointment by contacting Biophysics Student Services at
biophysics@umich.edu.

## Biophysics (B.S.)

May be elected as a departmental major

## Effective Winter 2016-9/30/2015

The Biophysics major is designed for students with a strong interest in the natural sciences who intend to embark on a career as a biophysical or medical scientist. It is intended to satisfy the admission requirements of most combined MD/Ph.D. programs and provide a strong foundation for quantitative interdisciplinary work in the biophysical or biomedical sciences or related fields, such as biomedical engineering.
Double Major: Students double majoring in Biophysics and any major in the Department of Physics cannot use PHYSICS 402, 406 or 453 to satisfy the Biophysics cognate or Honors elective requirement.

The Biophysics Major consists of two tracks, the Biological Physics track and the Structural Biology track.

## Biological Physics track

## New track effective Fall 2016 - 3/19/2016

The Biological Physics track is primarily focused on educating undergraduate students in the basics of Biophysics. In addition, participation in research is required, which allows students to explore cutting-edge biophysical research and gain valuable experience for a future career.

## Prerequisites to the Biological Physics Track of the Biophysics Major

- MATH 115 and 116
- MATH 215 and 216; or CHEM 262
- CHEM 210 / 211, 215;
- PHYSICS 135 / 136 and 235 / 236 (or 140/141 and 240/241);
- BIOLOGY 171, 172, 174 or 195.

Requirements for the Biological Physics Track of the Biophysics Major. A minimum of 32 credits:

1. Core: BIOPHYS 290, $370,417,450,454,495$
2. Outside Core: BIOLOGY 305 and CHEM 351
3. Research: At least two credits of BIOPHYS 399. Students wishing to do research in a laboratory outside the Biophysics Program must identify a co-sponsor.
4. Electives: One of BIOPHYS 430, 433, 435, 440, 463, MCDB 411. Other electives may be approved by a department advisor.
5. Cognate: One cognate course from PHYSICS 406, PHYSICS 453, CHEM 451 or BIOLCHEM 451, MCDB 427, MCDB 428, MATH 404, MATH 471.

## Structural Biology track

New track effective Fall 2016-3/19/2016
The Structural Biology Track is intended to educate students on the applications of Biophysics to fully understand the recent advances in biological and biomedical sciences, and to prepare them for careers that integrate the physical principles that govern biology with the modern methods and techniques that represent the forefront of structurally directed biophysical research. Students who pursue the Structural Biology track will be well equipped for graduate studies in biophysics, biochemistry, chemical biology, biomedical engineering, and also in other disciplines of life sciences. The track also will provide excellent preparation for students intending to pursue professional careers in the Biotechnology industry as well as the Health Sciences.

## Prerequisites to the Structural Biology Track of the Biophysics Major

- MATH 115 and 116
- CHEM 262
- CHEM 210 / 211, 215;
- PHYSICS 135 / 136 and 235 / 236 (or 140/141 and 240/241);
- BIOLOGY 171; and 172 or 174 or 195.

Requirements for the Structural Biology Track of the Biophysics Major. A minimum of 30 credits:

1. Core: BIOPHYS 370, 420, 421, 450, and 495
2. Outside Core: CHEM 351 or MCDB 310 or BIOLCHEM 415; and BIOLOGY 305
3. Research: At least two credits of BIOPHYS 399. Students wishing to do research in a laboratory outside the Biophysics Program must identify a co-sponsor.
4. Electives: One of BIOPHYS 430, 435, 440, 454, 463, 520, 521; or MCDB 411; or PHYSICS 430; or CHEM 440 or 454 or 520 or 521 ; or MATH 463 or BIOINF 463. Other electives may be approved by a department advisor.
5. Cognate: One cognate course from CHEM 451 or BIOLCHEM 451, MCDB 427 or MCDB 428, BIOLCHEM 530 or 550 or CHEMBIO 530.

## Honors Plan

Applies to both tracks, effective Fall 2016-3/19/2016
In addition to completing all the Biophysics requirements for the major, a GPA in the major of at least 3.4 and the completion of an Honors thesis (BIOPHYS 499) with a grade of B or better, and a second Biophysics elective are required.

Approved Honors electives are all biophysics and cognate electives above, and BIOPHYS 440 or CHEM 440, CHEM 453, MCDB 422, MCDB 428, PHYSICS 402 and PHYSICS 453.

## Biophysics Minor

Effective Winter 2016-9/30/2015
The minor in Biophysics is designed to give students in the natural sciences exposure and skills in quantitative, interdisciplinary work in the biophysical sciences.

Constraints: A minor in Biophysics not open to those electing a major in Biophysics.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Minor Program. The minor requires at least 15 credits from the following courses:

1. PHYSICS 340 or CHEM 210
2. BIOLOGY 305 or MCDB 310 or CHEM 351
3. BIOPHYS 370 or 417 , or PHYSICS 370 or 417 , or CHEM 370 or 417
4. BIOPHYS 290 or 430 or 440 , or PHYSICS 290 or 430 , or CHEM 440
5. BIOPHYS 450 or PHYSICS 450

Students wishing to pursue this option are strongly encouraged to talk to an advisor because the LSA rules for double-counting courses towards a major and minor apply.

# Business, Ross School of 

Ross School of Business
701 Tappan Street
(734) 763-5796 (phone)
(734) 763-7804 (fax)
www.michiganross.umich.edu
e-mail: RossUndergrad@umich.edu
The Ross School of Business offers a three-year Bachelor's of Business Administration (BBA). It grounds students in the main areas of business while providing a broad liberal-arts education. Students enter the program after the equivalent of one or more years at the University of Michigan, then continue at Ross for three years of full-time enrollment (fall-winter). For further information, visit the Ross School of Business website (www.michiganross.umich.edu)

The Ross School also offers a Minor in Business. The Minor in Business is neither a substitute for the BBA degree nor a fallback for students who are not accepted into the BBA program.
Courses in Business. Any undergraduate student may take business school courses without declaring the Minor in Business. However, students in the BBA program and students with a declared Minor in Business will have priority registration over other students.

Most courses offered by the Ross School of Business generate non-LSA credit.

For a complete list of Ross Courses, please consult
www.bus.umich.edu/impact/CourseManagement/CourseDescriptions.asp

## Minor in Business

The Minor in Business is designed for students who would like to complement their undergraduate major with business knowledge. The curriculum will enable students to integrate business concepts, skills, and perspectives into their declared majors and will add value to many technical and non-technical majors across campus. Facilities, clubs, corporate visits, career fairs, and career-prep seminars will all be open to minors.

Admissions. In order to declare the Minor in Business and have the minor listed on the official University record, students must first be admitted to the minor via a competitive application process. There is one admission cycle each year, and the Ross School plans to admit 100 students into the Minor in each of the first two years.
To be eligible to apply for admission to the minor, students must successfully complete the prerequisites and have junior standing or above by the end of the Winter term in which they apply. The application will be available in April and due in May for Fall Term admission. Following a prescreening of applicants to verify eligibility, admission decisions will be based on a holistic review of the application form, transcript, and 1-2

essays. Ross Undergraduate Admissions will pay particular attention to applications that explicitly and thoughtfully articulate why students are interested in the minor as a companion to their major.

Summary of Requirements. The Minor in Business curriculum consists of 15 credits and has flexible core and elective components; in addition, students must complete Microeconomics by graduation. Eligible courses taken prior to acceptance to the minor can be used to satisfy the 15-credit requirement. An overall grade point average of 2.0 or above within the minor must be achieved; and, all courses used to meet minor requirements must be elected both for credit and for a grade. At least 15 credits with a minimum of five courses (elective course credit-loads vary) to be chosen from core requirements and electives.

## Prerequisites to Application to the Minor

- MATH 105, 115, or 120 (or equivalent) or upper-level calculus
- First-Year Writing Requirement Course or ENGR 100


## Minor Program

1. Core Requirements ( 4 courses, 12 credits):

- ACC 300 Financial Accounting (3) or ACC 471 Accounting Principles (3)
- FIN 302 Making Financial Decisions (3) or TO 302 Managing Business Operations (3)
- MKT 300 Marketing Management (3) or MO 302 Positively Leading People and Organizations (3)
- STRATEGY 302 (3)
or
Action-Based Learning course from the following list (subject to change):

O ES 395 Entrepreneurial Management (3)
0 ES 445 Base of the Pyramid - Business Innovation (3)
O MKT 301 Strategic Marketing Planning (3)
O MO 463 Leading Creativity and Innovation (3)
O STRATEGY 470 Strategic Management of Knowledge in Professional Service Firms (3)
O STRATEGY 492 Dynamic Capabilities Through Corporate Development (3)
0 TO 465 Business Systems Consulting (3)
O TO 482 Projects in Operations, Purchasing and Supply Chain Management (7.5)
2. Electives. (Students must complete a minimum of 3 credits of electives from the following list, which is subject to change):

- ACC 301 Managerial Accounting (3)
- ACC 312 Intermediate Financial Accounting (3)
- ACC 315 Cost Accounting (3)
- ACC 318 Financial Statement Analysis (3)
- BA 201 Business Thought and Action (3)
- BE 311 Public Policies Toward Business (3)
- BE 440 Risk Management \& Insurance (3)
- ES 250 Introduction to Entrepreneurship (3)
- BL 305 Legal Environment (3)
- BL 306 Law of Enterprise Organization (3)
- BL 309 Business Ethics \& Accountability (1.5)
- BL 310 Negotiation \& Dispute Resolution (1.5)
- FIN 317 Corporate Financing Decisions (3)
- FIN 320 Real Estate Fundamentals (1.5)
- FIN 321 Commercial Real Estate Finance (1.5)
- FIN 329 Financing Research Commercialization (3)
- FIN 334 Applied Quant/Value Portfolio Management (3)
- FIN 408 Capital Markets and Investment Strategy (1.5)
- FIN 409 Fixed Income Securities and Markets (1.5)
- FIN 415 Corporate Investment Decisions (3)
- FIN 425 Entrepreneurial Finance (3)
- FIN 440 Financial Trading (1.5)
- FIN 480 Options and Futures in Financial Decisions (1.5)
- MKT 303 Brand Management (1.5)
- MKT 313 Consumer Behavior (3)
- MKT 408 Pricing (3)
- MKT 411 Advertising Management (3)
- MKT 418 Marketing Research and Analysis (3)
- MKT 425 New Product Management (3)
- MO 321 Leadership in Organizations (3)
- MO 414 Managing Change (3)
- MO 415 Introduction to Managing Human Capital (3)
- STRATEGY 310 The World Economy (3)
- STRATEGY 361 International Management (3)
- STRATEGY 411 Corporation in Society (3)
- STRATEGY 417 Behavioral Processes of Strategic Management (3)
- TO 410 Supply Chain Management (3)
- TO 411 Decision Support with Excel (3)

Co-Requisite that must be completed prior to Graduation: ECON 101 Microeconomics (4).

Advising. Students admitted to the Minor in Business should continue to meet regularly with academic advisors and career counselors in their home schools. Information sessions on the minor and the application process will be available for prospective minor applicants each term. Once accepted into the minor, Ross advisors are available by appointment to review and develop plans to complete the Minor in Business and to verify completion of the Minor in Business. The Ross Academic Advising Director will communicate with LSA to officially coordinate the notation of the Minor in Business on student records.

Because admissions decisions will be made in July, after registration for the Fall term has occurred, students applying to the Minor in Business are advised to enroll in a full schedule of courses during the regular registration timeline. Students should select coursework in consultation with their home school academic advisors that will match both their degree requirements and interests.

During the regular Fall registration process, students may choose to enroll in Ross courses for which they meet prerequisites without being admitted to the minor. Those students who have applied to the minor will likely want to consider enrolling in one or more Ross classes prior to final decisions on minor admission. Students who are later admitted to the minor may want to make some adjustments to their schedules in July, if necessary, but will likely not need to make widespread changes to their course schedules. Students who are not admitted to the minor, but who have registered for Ross courses may still choose to complete business courses through Ross to align with their interests, so will also not need to make schedule adjustments during the summer, unless desired.

For more information visit www.michiganross.umich.edu or contact the Ross School of Business BBA Program Office at RossUndergrad@umich.edu

## Chemistry

1500 Chemistry Building
930 North University Avenue
(734) 647-2857 or (734) 647-2858 (phone)
(734) 647-4865 (fax)
www.umich.edu/~michchem
e-mail: ChemUndergrad@umich.edu
The curricula in Chemistry serve those preparing for careers in chemistry, biochemistry, medicine, chemical engineering, pharmacy, and allied fields as well as those seeking a general knowledge of chemistry as part of a liberal arts education. Beyond the first-year courses, there is an emphasis on development of technical knowledge and laboratory experience needed in chemistry and related scientific fields. The undergraduate majors prepare students for work in research and testing laboratories, as well as for business positions in which a chemistry background is desirable. Graduate work is necessary for those planning to do college and university teaching or industrial research.

Majors and Minors. The Department of Chemistry offers programs leading to :

1. Minors in Biochemistry, Chemistry, Chemical Physics, Polymer Chemistry, and Chemical Measurement Science
2. a Bachelor of Science degree with a major in Chemical Science (B.S. degree, 120 credits);
3. a Bachelor of Science in Chemistry degree (B.S. Chem. degree, 124 credits);
4. a B.S. Chem. degree with Honors in chemistry. The Bachelor of Science in Chemistry (B.S. Chem.) degree requires a more rigorous and more specialized program of study. The program leading to Honors in chemistry is available to qualified students.
5. a Bachelor of Science or Bachelor of Arts in Interdisciplinary Chemical Sciences
6. a Bachelor of Science or Bachelor of Arts in Biomolecular Science
7. The department participates in and administers an interdepartmental major "Biochemistry."
It is possible to incorporate a teaching certificate into any of these program options.

In addition there is a five-year joint degree program with the College of Engineering which leads to a B.S. Chem. and a Bachelor of Science in Engineering (Chemical Engineering).

Information about the program leading to the joint degree with the College of Engineering and general information about teaching certificate requirements are described elsewhere; departmental requirements for these programs are described below.

It is strongly recommended that students who are thinking of degrees in chemistry should arrange an appointment with a Chemistry advisor via the online advising system as soon as possible, preferably before the end of the freshman year but certainly before the end of the sophomore year. The online appointment scheduling system can be found here:
www.Isa.umich.edu/chem/undergraduate/advising
Teaching Certificate. Those seeking a B.S. or B.S. Chem. degree with a teaching certificate in Chemistry must fulfill departmental as well as School of Education requirements. Students who plan to earn a teaching certificate with a teaching major or minor in Chemistry should contact the School of Education Teacher Education office.

Special Departmental Policies (effective Fall 2015): The department strongly recommends that a student earn a grade of at least C- in all CHEM courses and mathematics, physics, and biology courses that are prerequisite for subsequent elections. A major program grade point average of at least 2.0 is required; this includes chemistry courses, mathematics, physics, and biology prerequisites, and advanced electives
that are part of a major plan. Prerequisites must be taken for a grade. Students must request any change in a chemistry course grade within the first fifteen University Business days of the first full term following the term in which the disputed grade was issued. [This change is for all of our majors which include Chemistry BSChem, Biochemistry, Biomolecular Science, Chemical Science and Interdisciplinary Chemical Sciences and our minors Biochemistry, Chemical Measurement, Chemical Physics, Chemistry and Polymer Chemistry.]

## B.S. in Chemistry (B.S.Chem.)

May be elected as a special degree program
Exclusions: Students who elect B.S.Chem may not elect the following major: Interdisciplinary Chemical Sciences or Chemical Science. They may also not elect any of the Chemistry minors.

The curriculum leading to a Bachelor of Science in Chemistry (B.S. Chem. degree) serves students who are interested in professional careers in chemistry, biochemistry, or related fields.
The B.S. in Chemistry is the most rigorous degree in pure chemistry offered by the department, and should be the degree of choice for students who plan to pursue Ph.D. studies in one of the traditional sub-areas of the field (Organic Chemistry, Inorganic Chemistry, Physical Chemistry, and Analytical Chemistry) or students who plan to seek careers in the Chemical Industry. Students are required to take several lecture and lab courses in all of these core areas, and are also required to complete 4 credits (two semesters) of undergraduate research.

## Chemistry Degree Credit and GPA Requirements

124 Credits. A grade point average of at least 2.0 is required; this includes chemistry courses, mathematics and physics prerequisites and advanced electives which are part of the major. Prerequisites must be taken for a grade.

## Prerequisites to the Program

- CHEM courses through 215, 216, 241/242, and 260 or 370
- PHYSICS [135/136 or 140/141] and [235/236 or 240/241]
- MATH 115 (or 120 ), 116 (or 121), 215, 216, or an equivalent sequence.

PHYSICS 240 or 235 and MATH 215 are prerequisites for CHEM 461 and students should, wherever possible, complete both of these before the junior year.
Chemistry Degree Course Requirements include a minimum 124 credits, including CHEM 302 or $303,402,447,461,462,463,482,483$ and four credits of CHEM 399 taken over at least two terms, as well as one advanced lecture course in chemistry.
Honors Plan in Chemistry. The B.S. Chem. degree is the basis of the Honors degree in Chemistry. Maintenance of a satisfactory GPA (3.4) in courses for the major, including prerequisites, and satisfactory completion of an Honors thesis (CHEM 499) based on the research done in CHEM 399 are required for Honors. All students, whatever their program, who are interested in an Honors degree should see the Chemistry Honors advisor (Room 1500 Chemistry) for approval for participation in the Junior-Senior Honors Program in Chemistry.

Advising. Students develop a degree program in consultation with a program advisor. Those interested in the specialized program leading to the Bachelor of Science in Chemistry ( 124 credits) are urged to consult a program advisor during the freshman and/or sophomore years. Prospective majors are advised that further study in chemistry requires adequate performance in early chemistry courses (preferably B- or better) as well as in the mathematics and physics prerequisites. Students interested in an Honors degree should see the Chemistry Honors advisor. Appointments are scheduled online at

## www.lsa.umich.edu/chem/undergraduate/advising

Students interested in the joint program with the College of Engineering should make an appointment with John Stratman [Academic Advising Center, 1255 Angell Hall, (734) 764-0332] and then make an appointment online to see a chemistry department advisor.

## Chemical Science (B.S.)

May be elected as a departmental major
Exclusions: Students who elect a major in Chemical Science may not elect the following majors: Interdisciplinary Chemical Sciences or Chemistry. They may also not elect any of the Chemistry minors.

This major also exposes students to all sub-disciplines in Chemistry, but provides more flexibility in course selection than the BS Chemistry degree. Undergraduate research is an option, but not a requirement for this degree. The major in Chemical Sciences is directed toward students who have interdisciplinary interests and are not planning to either attend a traditional graduate program in chemistry or to find immediate employment as a Chemist. Instead, this degree is geared towards students who plan to attend graduate school in an interdisciplinary field where chemical knowledge will be beneficial, and this should also be an attractive option to students that plan to pursue post-graduate degrees in the Health Sciences.

## Prerequisites to the Major

- CHEM 210/211, 215, 216, 241/242, and 260
- PHYSICS [135/136 or 140/141] and [235/236 or 240/241]
- MATH 115 (or 120 ), 116 (or 121), or equivalent sequence.
- CHEM 262; OR MATH 215 and one of MATH 214, 216 or 216, or equivalent


## Requirements for the Major

- CHEM 302 or 303
- Two of CHEM 351, 402, 419, 420
- Two of CHEM 447, 461, [463 or 453]
- CHEM 462 (Note: CHEM 462 is to be taken concurrent with CHEM 461, 463 or 452).
- Two of CHEM 399 ( 2 or 3 credits), 352, 436, 482, 483 to total a minimum of 5 credits. If a student chooses CHEM 399 to meet this requirement, the other course must be in an area of chemistry different from that of the CHEM 399 research.
- Additional 3-credit upper-level elective

Advising. Students develop a major in consultation with a program advisor. Those interested in a major in Chemical Science are urged to consult a program advisor during the freshman and/or sophomore years. Prospective majors are advised that further study in chemistry requires adequate performance in early chemistry courses (preferably B- or better) as well as in the mathematics and physics prerequisites. Appointments are scheduled online at
www.Isa.umich.edu/chem/undergraduate/advising

## Interdisciplinary Chemical Sciences (ICS)

May be elected as a departmental major
Exclusions. May not be elected by those pursing a major in Chemical Science (or Chemistry), Biochemistry, or Biomolecular Science; or any of the Chemistry minors

The Interdisciplinary Chemical Sciences (ICS) major allows students the flexibility to supplement a core study of chemistry with courses in complementary fields. The intended audience for the major includes prehealth professional students, students interested in the relationship between science and societal concerns such as the environment or public policy, students interested in fields such as the philosophy of science or history of science where a sound background in a scientific field will provide a deeper level of engagement, and students interested in broadly interdisciplinary sciences not well represented in any individual department. This major can be effective preparation for graduate study in the sciences, graduate studies in an interdisciplinary area that might
benefit from a strong science background, for medical, law, and business schools, or for direct entry into the job market.

## Prerequisites to the Major

- PHYSICS 135/136 or 140/141 or equivalent
- MATH 115 (or 120 ) and 116 (or 121); or an equivalent sequence


## Requirements for the Major:

A minimum of 27 credits in Chemistry and 15 credits in cognates approved by the department advisor, as follows:

1. Core Courses in Chemistry:

- CHEM 210/211
- CHEM 241/242 or CHEM 245/246/247
- CHEM 260
- CHEM 302 or 303.

2. Electives. 12 credits in CHEM, including at least three courses at the 300 -level or above. At least one of these must be a 400-level lecture course.
3. Theme Focus/Cognates: 15 credits of course work at the 200-level or above, with at least two courses ( 6 credits) at the 300 -level or above. The plan must be designed with prior approval of a chemistry department advisor.

The Interdisciplinary Chemical Sciences major allows students substantial flexibility to define the thematic focus of their study in cognate courses. The flexibility inherent in the ICS major comes with a responsibility: each student must work closely with an ICS department advisor to select the proper upper-level chemistry classes and define a cognate course plan when declaring the ICS major. Possible cognate plans are posted on the department website. Example subplans include a focus on:

- Health and Life Sciences
- Philosophy
- Chemical Physics
- ICS at the interface between science and public policy

Honors Plan in Interdisciplinary Chemical Sciences. Maintenance of a satisfactory GPA (3.4) in courses for the major, including prerequisites, and satisfactory completion of an Honors thesis (CHEM 499) based on the research done in CHEM 399 are required for Honors. All students, whatever their program, who are interested in an Honors degree should see the Chemistry Honors advisor (Room 1500 Chemistry) for approval for participation in the Junior-Senior Honors Program in Chemistry.

Advising. Students develop a major in consultation with a program advisor. Advisor approval of the major will be required when a student declares an ICS major. Those interested in a major in Interdisciplinary Chemical Sciences are urged to consult a program advisor during the freshman and/or sophomore years. Prospective majors are advised that further study in chemistry requires adequate performance in early chemistry courses (preferably B- or better) as well as in the mathematics and physics prerequisites. Students interested in an Honors degree should see the Chemistry Honors advisor. Appointments are scheduled online at www.Isa.umich.edu/chem/undergraduate/advising

## Biochemistry (B.S.)

May be elected as an interdepartmental major
Exclusions: Students who elect a major in Biochemistry may not elect the following majors: Biomolecular Science, Interdisciplinary Chemical Sciences, Biology, General Biology; Cell and Molecular Biology; CMB:Biomedical Engineering; Ecology and Evolutionary Biology; Microbiology; or Neuroscience. They may also not elect a minor in Biology, or any of the Chemistry minors.

The biochemistry major is intended for students interested in the chemical basis of biological phenomena. This degree program is ideal for students who are interested in learning about life from a chemical perspective. The major is intellectually demanding and is intended to prepare students for further education (graduate school or medicine). Students will gain a solid foundation in chemistry through traditional sub-discipline courses, but will also take a number of chemistry courses that are focused on the role of chemistry in biological systems. Students will also have the option to take
elective courses in molecular biology, and also may pursue undergraduate research in lieu of one of the traditional laboratory courses. A B.S. degree in biochemistry is also a useful means of preparing for jobs in academic medical centers, the pharmaceutical industry, and in biotechnology companies. Students that pursue this degree will be well equipped for graduate studies in biochemistry, chemical biology, and many other fields of inquiry in the life sciences. The degree will also provide excellent preparation for students intending to pursue professional careers in the Biotechnology Industry as well as the Health Sciences. Because the major is highly structured, it is essential that prospective majors follow the guidelines set forth below.

## Prerequisites to the Major:

- BIOLOGY 171 and 172
- CHEM 210/211, 215
- MATH 115 (or 120), 116 (or 121), 215 (or the equivalent)
- PHYSICS [135/136 or 140/141] and [235/236 or 240/241]; or the equivalent.

In cases where a student is transferring to Biochemistry from outside the University or is entering later, from another major, the student may be awarded an override for Genetics after completion of only one of either BIOLOGY 171 or 172, and where taking the other would be a burden for timely graduation. The override request must come from a Biochemistry department advisor along with the assurance that the student has been informed of the material from BIOLOGY 171 or 172 that he or she needs to review prior to enrolling in the Genetics course.
Requirements for the Major. Must include:

1. Core: BIOLOGY 305; CHEM 260, [302 or 303 or 241 or 245], [216 or 242 (or 246 and 247)], 351*, 352, 451, 452, 453.
*Students are strongly encouraged to take CHEM 351 but could substitute this course requirement with MCDB 310 or BIOLCHEM 415.
2. Electives: A total of at least six credits chosen from:

- CHEM 417/BIOPHYS 417/PHYSICS 417 (3) Dynamic Biophysics
- CHEM 420 (3) Advanced Organic Chemistry
- CHEM 440/BIOPHYS 440 (3) Biophysics of Disease
- CHEM 447 (3) Physical Methods of Analysis
- CHEM 454 (3) Biophysical Chem II: Macromolecular Structure, Dynamics
- CHEM 455 (3) Special Topics in Biochemistry
- CHEM 461 (3) Physical Chemistry I
- CHEM 467/AOSS 467/EARTH 465/ENSCEN 467/ENVIRON 467 (3) Biogeochemical Cycles
- CHEM 521/BIOPHYS 521 (3) Biophysical Chemistry II
- CHEM 528/BIOLCHEM 528/MEDCHEM 528 (2) Enzyme Mechanisms, Ligand Binding,
- CHEM 673/BIOLCHEM 673 (2) Enzyme Kinetics
- AOSS 467/CHEM 467/EARTH 465/ENSCEN 467/ENVIRON 467 (3) Biogeochemical Cycles
- BIOLCHEM 528/CHEM 528/MEDCHEM 528 (2) Enzyme Mechanisms, Ligand Binding,
- BIOLCHEM 530/CHEMBIO 530 (3) Structural Biology
- BIOLCHEM 541 (3) Molecular Genetics
- BIOLCHEM 550 (3) Macromolecular Structure and Function
- BIOLCHEM 576/PHYSIOL 576/PHRMACOL 576 (1) Signal transduction
- BIOLCHEM 640 (2) Post-transcriptional Gene Regulation
- BIOLCHEM 650 (3) Mechanisms of Eukaryotic Gene Expression
- BIOLCHEM 673/CHEM 673 (2) Enzyme Kinetics
- BIOLCHEM 675/CDB 675/MICRBIOL 675 (2) Advanced Topics in Protein Trafficking and Localization
- BIOPHYS 417/CHEM 417/PHYSICS 417 (3) Dynamical Processes in Biophysics
- BIOPHYS 435 (3) Biophysical Modeling
- BIOPHYS 440/CHEM 440 (3) Biophysics of Disease
- BIOPHYS 521/CHEM 521 (3) Biophysical Chemistry II
- CDB 675/BIOLCHEM 675/MICRBIOL 675 (2) Advanced Topics in Protein Trafficking and Localization
- CHEMBIO 530/BIOLCHEM 530 (3) Structural Biology
- EARTH 465/CHEM 467/AOSS 467/ ENSCEN 467/ENVIRON 467 (3) Biogeochemical Cycles
- ENSCEN 467/CHEM 467/AOSS 467/EARTH 465/ENVIRON 467 (3) Biogeochemical Cycles
- ENVIRON 467/CHEM 467/AOSS 467/EARTH 465/ENSCEN 467 (3) Biogeochemical Cycles
- MCDB 405 (3) Molecular Basis of Development
- MCDB 411 (3) Protein Biochemistry)
- MCDB 417 (3) Chromosome Structure and Function
- MCDB 418 (3) Endocrinology
- MCDB 427 (3) Molecular Biology
- MCDB 428 (3) Cell Biology
- MCDB 431 (3) Plant Biochemistry
- MCDB 435 (3) Intracellular Trafficking
- MCDB 436 (3) Introductory Immunology
- MCDB 437 (3) Microbial Communities \& Development
- MCDB 441 (3) Cell Biology of Disease
- MCDB 471 - Advanced Methods in Biochemistry
- MEDCHEM 528/BIOLCHEM 528/CHEM 528 (2) Enzyme Mechanisms, Ligand Binding,
- MICRBIOL 675/BIOLCHEM 675/CDB 675 (2) Advanced Topics in Protein Trafficking and Localization
- PHRMACOL 576/BIOLCHEM 576/PHYSIOL 576 (1) Signal transduction
- PHYSICS 417/CHEM 417/BIOPHYS 417 (3) Dynamic Biophysics
- PHYSIOL 576/BIOLCHEM 576/PHRMACOL 576 (1) Signal transduction

3. An advanced laboratory or undergraduate research course. Recommended options for the advanced laboratory course are MCDB 429 , CHEM 482 or 483 ; or a total of four credits of undergraduate research elected as any combination of either CHEM 398 or BIOLCHEM 398 , by permission of the department advisor. Students electing the undergraduate research option must execute an extended research project under the supervision of a faculty member who agrees to oversee the project.

Honors Plan. Qualified students may elect an Honors plan. This program requires a thesis which describes and analyzes independent experimental work. The research topic and advisor must be approved by the Honors advisor in Biochemistry. Students in this program are expected to maintain an overall grade point average above 3.4 and at least a 3.4 in the field of the major, including prerequisite courses. CHEM 398 ( 4 credits) and the thesis course, CHEM 498, replaces the requirement for an upper-level laboratory course outlined above.
Advising. Appointments are scheduled online at the Chemistry website.

## Biomolecular Science (A.B. or B.S.)

May be elected as an departmental major
Exclusions: Students who elect a major in Biomolecular Science may not elect the following majors: Biology, General Biology, Neuroscience, Biochemistry, Interdisciplinary Chemical Sciences, Microbiology, or Cell and Molecular Biology. They may also not elect any of the Chemistry minors.

The major in Biomolecular Science serves pre-health students and others who are not intending to go into science as a career but would benefit from a scientific credential. In addition to medicine, we envisage that this major will be of interest to students planning careers in fields such as education, journalism, science policy, business, law, etc. The Biomolecular Science major provides students with the core knowledge necessary to understand the chemical principles underpinning biology and the option to explore aspects of the subject of interest to them through a set of electives drawn from current course offerings in chemistry, biophysics and MCDB. The major differs from the Biochemistry major in requiring fewer courses and does not have a research component. Biomolecular Sciences is a less extensive major than Biochemistry, and is primarily aimed at those planning a career outside of the chemical sciences. Instead, this should be an attractive degree option for students who plan to pursue post-graduate

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studies in Biomedical or Health Sciences. Students who are intending to pursue graduate studies or an industrial career in biochemistry or related areas are strongly encouraged to elect the Biochemistry major. The major is structured so that students can readily convert to the BS major in Biochemistry if they decide to do so during the course of their studies.

## Prerequisites to the Major:

- BIOLOGY 171, 172 and 173 (or the equivalent)
- CHEM 130, 125/126; or CHEM 245/246/247 for students with AP credit for CHEM 130, 125/126
- MATH 115 (or 120); or the equivalent
- MATH 116 (or 121) or STATS 250; or the equivalent
- PHYSICS [135/136 or 140/141] and [235/236 or 240/241] (or the equivalent).

Requirements for the Major. A minimum of 25 credits. The major must include:

1. Core: CHEM 210/211; CHEM 215; CHEM 260 or 230; CHEM 351* and 352
*Students are strongly encouraged to take CHEM 351 but could substitute this course requirement with MCDB 310 or BIOLCHEM 415.
2. Electives: A total of at least 9 credits (three courses) with at least one course at the 400-level:
A. List A. At least one course chosen from:

- CHEM 303, 420, 451, 452, 453; 455
- BIOLCHEM 451, 452
B. List B. At least one course chosen from:
- BIOLOGY 305
- BIOPHYS 440
- CHEM 440;
- MCDB 405, 411, 422, 427, 428, 431, 437

Honors Plan. Students may obtain Honors in Biomolecular Science by successfully completing all courses required for the Biomolecular Science major with an overall GPA of 3.4. In addition, students obtaining Honors must complete one additional upper-level Chemistry elective (chosen in consultation with the department advisor), complete four credits elected over at least two terms of CHEM 398 and write a thesis based on their undergraduate research. Students must register for one credit of CHEM 498 in the term in which they plan to submit their thesis.

Advising. Appointments with the biochemistry advisors are scheduled online on the Chemistry website:
www.umich.edu/~michchem/undergrad/index.html

## Chemistry Minors

A minor offered by the Chemistry department is not open to students with a major in Chemistry, Interdisciplinary Chemical Sciences, Biochemistry, or Biomolecular Science.

Students wishing to pursue a minor offered by the Chemistry Department must develop a specific plan for its completion in consultation with the Department's designated advisor. Chemistry, Chemical Physics, Polymer Chemistry, and Chemical Measurement Science minors are arranged in consultation with any Chemistry department advisor, while Biochemistry minors are arranged in consultation with any Biochemistry advisor. Information about scheduling advising appointments is available from the Department's website.

Students electing a minor within the Department of Chemistry may only elect ONE of the five minors offered by the Department.

## Chemistry Minor

The Chemistry minor provides a broad and general exposure to the traditional areas of the chemical sciences.

Exclusions: The Chemistry Minor is not open to students majoring in Biochemistry, Biomolecular Science, Chemistry, Interdisciplinary Chemical Sciences, Cell and Molecular Biology, Biology, General Biology,

Neuroscience, Ecology and Evolutionary Biology, Plant Biology, and Microbiology.

## Prerequisite to the Minor:

- MATH 115 (or 120), or equivalent;
- PHYSICS 135, 140, or equivalent.

Requirements for the Minor: at least 18 credits of courses as follows:

1. Core: CHEM 130* \& CHEM 210/211.
2. Electives: CHEM 215/216, CHEM 241/242, CHEM 260 (or CHEM 261 and CHE 330), CHEM 302 or 303, CHEM 312 (2), CHEM 419 or 420, CHEM 402, CHEM 461, CHEM 482.
*Students who do not place into CHEM 210 are strongly recommended to take CHEM 130. Neither CHEM 130, nor AP credits earned for CHEM 130, count toward the minor.

## Biochemistry Minor

The Biochemistry minor provides a broad and general exposure to biochemistry from a chemical sciences perspective.

Exclusions: The Biochemistry Minor is not open to students majoring in Biochemistry, Biomolecular Science, Chemistry, Interdisciplinary Chemical Sciences, Cell and Molecular Biology, Biology, General Biology, Neuroscience, Ecology and Evolutionary Biology, Plant Biology, and Microbiology.

## Prerequisites to the Minor:

- MATH 115 (or 120), or equivalent;
- PHYSICS 135 or 140, or equivalent;
- BIOLOGY 172.

Requirements for the Minor: at least 18 credits of courses as follows:

1. Core: CHEM 210/211, CHEM 215, CHEM 260 (or CHEM 261 and CHE 330) or CHEM 370, CHEM 351*.
2. Electives: CHEM 451* and 452, CHEM 241/242 or CHEM 245/246/247, BIOLOGY 305.
*Students who have already taken any of the one-term biochemistry courses [MCDB 310 or BIOLCHEM 415] cannot get credit for CHEM 351. The minor will accept these other one-term courses provided the student takes CHEM 451 or 452 as one of the electives.

## Chemical Physics Minor

The Chemical Physics minor provides a concentrated exposure to physical chemical principles.

Exclusions: The Chemical Physics Minor is not open to students majoring in Biochemistry, Biomolecular Science, Biophysics, Chemistry, or Interdisciplinary Chemical Sciences.

## Prerequisite to the Minor:

- MATH 115 (or 120 ), 116 (or 121 ), 215 (or the equivalent)
- PHYSICS 235 or 240, or equivalent.

Requirements for the Minor: at least 18 credits of courses as follows: CHEM 130,* CHEM 210/211, CHEM 260 or CHEM 370, CHEM 461, CHEM 462, CHEM 463 or 453.
*Students who do not place into CHEM 210 are strongly recommended to take CHEM 130. Neither CHEM 130, nor AP credits earned for CHEM 130, count toward the minor.

## Polymer Chemistry Minor

The Polymer Chemistry minor provides a concentrated exposure to a subspecialization within Materials Science from a chemical sciences perspective.

Exclusions: The Polymer Chemistry Minor is not open to students majoring in Biochemistry, Biomolecular Science, Chemistry, or Interdisciplinary Chemical Sciences.

Prerequisite to the Minor:

- MATH 115 (or 120), or equivalent;
- PHYSICS 135 or 140, or equivalent.

Requirements for the Minor: at least 18 credits of courses as follows: CHEM 210/211, CHEM 215, CHEM 260 or 370 , CHEM 302 or 303 , CHEM 436, CHEM 538.

## Chemical Measurement Science Minor

The Chemical Measurement Science minor provides a concentrated exposure to analytical chemistry that is appropriate across a wide variety of scientific areas.

Exclusions: The Chemical Measurement Science Minor is not open to
students majoring in Biochemistry, Biomolecular Science, Chemistry, or Interdisciplinary Chemical Sciences.

## Prerequisite to the Minor:

- MATH 115 (or 120), or equivalent;
- PHYSICS 135 or 140, or equivalent.

Requirements for the Minor: at least 18 credits of courses as follows:

1. Core: CHEM 210/211, CHEM 260 or 370, CHEM 241/242, CHEM 447.
2. Electives: CHEM 480*, CHEM 545*.
*Although prerequisites are not enforced, students who elect CHEM 480 or 545 should consider taking, or having taken, advanced physical chemistry beyond the CHEM 260/370 level.

## The Kenneth G. Lieberthal and Richard H. Rogel Center for Chinese Studies (LRCCS)

1080 South University, Suite 4668
(734) 764-6308 (phone)
(734) 764-5540 (fax)
www.ii.umich.edu/Irccs
e-mail: chinese.studies@umich.edu
Undergraduates may pursue Chinese Studies through the Asian Studies major or minor of the Department of Asian Languages and Cultures.

The Kenneth G. Lieberthal and Richard H. Rogel Center for Chinese Studies was founded in 1961, and since then has become one of the country's
most prominent Centers devoted to a deeper understanding of China, past and present. The mission of the Center is to provide students, specialists and the public at large with expert resources and a deeper understanding of issues ranging from today's headlines to time-honored questions of value and meaning.

The Lieberthal-Rogel Center offers a broad, interdisciplinary approach to the study of China at the Master's Level. Undergraduates may pursue Chinese Studies through the Asian Studies major of the Department of Asian Languages and Cultures.

## Classical Studies

2160 Angell Hall
435 South State Street
(734) 764-0360 (phone)
(734) 763-4959 (fax)
www.Isa.umich.edu/classics
e-mail: classics@umich.edu
The Department of Classical Studies is concerned with every aspect of the worlds of the ancient Greeks and Romans - their languages and literatures, art and material cultures, philosophy, history, daily life, law and justice, political theory, and religion. The works and thoughts of the Greeks and Romans provide focus and historical perspective to questions which are heatedly debated in our time, making this field of study exciting and intellectually engaging. An ideal liberal arts education, Classical Studies is an excellent way to develop analytical abilities, to learn to make careful arguments and express them lucidly as well as come to a solid understanding of some of the greatest monuments of human thought and art.

Special Departmental Policies. The department requires that a student earn a grade of at least $C$ - in all language courses which are prerequisite for subsequent elections. A student should repeat any language course in which a $D+$ or lower grade is earned and which serves as a prerequisite to other courses which are to be elected. A grade of D+ signifies some achievement but denotes too weak a foundation for subsequent courses.

Advising. Students interested in the department's majors in Ancient Greek (Ancient) Language and Literature, Latin, Classical Languages and Literatures, Classical Archaeology, Classical Civilization, or Greek (Modern) Language and Culture should check with the department office for the name of the current advisor. Students interested in obtaining Teacher Certification in Latin should see Professor Deborah Ross. The department recommends that interested students see the undergraduate advisors as early as possible in order to plan their programs and avoid unnecessary scheduling conflicts.

Honors Plans. The department offers Honors in each of the six majors. Interested students who have a cumulative grade point average of at least 3.5 should contact their department advisor to discuss an Honors thesis no later than the winter term of their junior year at the latest.

It is the student's responsibility to find a suitable faculty advisor to oversee the thesis project. This project and its components are to be decided collectively by the student and the advisor at the end of the junior year. We encourage students to think creatively about the approach to their research and thesis project. Thesis advisors must sign off on a student's thesis project proposal.

Honors students may receive six credits during their senior year for research culminating in a thesis project by registering for one of the following courses: CLARCH 495, CLCIV 495, GREEK 495 or LATIN 495 depending on the major. At the end of the thesis project, the candidate must offer an oral defense of this work to a committee comprised of the thesis advisor and another faculty member, and present their research findings at the Classical Studies Honors Symposium.
Additional requirements for Honors candidates are specified with each major below.

## Classical Archaeology

May be elected as a departmental major

## Honors plan effective Fall 2016 updated 3/22/2016

Classical archaeology is the study of the material culture - the artifacts, sites, monuments, and landscapes - of the ancient Mediterranean world. While the civilizations of Greece and Rome tend to be our focus, other areas, notably Egypt and the Near East, also form part of what we study. Classical archeology deals with all periods from the Paleolithic through the Byzantine.

Courses in Classical Archaeology generally do not require knowledge of Greek or Latin.

Requirements for the Major. Requires a minimum of 9-10 courses (at least 3 credits each) including:

1. Two of the following introductory courses: CLARCH 220, 221, 222, 323.
2. Three upper-level courses (numbered 380 and above) in the field of Classical Archaeology.
3. One course in either Greek or Roman history or civilization.
4. In consultation with an advisor, one upper-level course in a cognate field (e.g., Anthropology, History, History of Art, Near Eastern Studies, Religion, Women's Studies).
5. Third-term proficiency in Greek or Latin (usually met by successful completion of GREEK 301 or the equivalent, or LATIN 231 or the equivalent). Students who plan to fulfill this requirement in other ways should speak to the undergraduate advisor.
6. At least one additional relevant course.

Students interested in possibly continuing in the field of Classical Archaeology should discuss their plans (not least in the ancient languages) with the undergraduate advisor as early and as frequently as possible.

Honors Plan. In addition to the above requirements, students pursuing an Honors major must satisfy the following:

- 3.4 minimum overall GPA; 3.5 minimum major GPA
- Completion of an Honors thesis and oral defense in coordination with a Classics faculty member
- Completion of eight credits in the second classical language (Greek if the major language is Latin; Latin if the major language is Greek).
- CLCIV 480 topicID \#10 Research Seminar (Fall term)

Students may also elect CLARCH 495 for 1-2 credits in the Fall and 1-3 credits in the Winter but are not required to do so.

Field Experience. Recommended but not required for a major in Classical Archaeology. There are several opportunities for students to join excavations in the Mediterranean area under the supervision of University of Michigan faculty. Contact the department to speak with an advisor.

## Classical Civilization

## May be elected as a departmental major

## Honors plan effective Fall 2016 updated 3/22/2016

Classical Civilization is an exploration of the life and culture of the ancient Greeks and Romans. Students examine almost every aspect of ancient life - art, architecture, social/political problems and events, and the literature of these cultures. Knowledge of Greek or Latin is not required for this program, but highly recommended.
Prerequisites to the Major. A minimum of two courses from the following choices, for a total of 8 credits. One course must emphasize Greek culture and the other course must emphasize Roman culture: CLCIV 101, 102, HISTORY 200, 201, GTBOOKS 191.

Requirements for the Major. Requires a minimum of 9 courses (of at least 3 credits each) for approximately 29 credits including:

1. at least five upper-level courses (minimum 15 credits) in Classical Civilization at the 300 - or 400 -level, with at least two of these at the 400 -level. These courses must include at least one course in literature and one course in religion/philosophy. One course in Latin or Ancient Greek may substitute for one of these Classical Civilization courses.
2. One course (minimum 3 credits) in Classical Archaeology.
3. One course (minimum 3 credits) in Ancient Greek or Roman history. This requirement is separate from any History course that may have been taken as a prerequisite to the major.
4. In consultation with an advisor, at least one upper-leve elective/cognate course (minimum 3 credits) outside the division of Classical Civilization. LATIN 231, 232, 295 or GREEK 301, 302, 307, 308 may also count to meet this requirement.
5. The "Capstone Seminar," either CLCIV 480 or CLCIV 481. Honors candidates may substitute CLCIV 494 and 495 in place of the Capstone Seminar.

Honors Plan. In addition to the above requirements, students pursuing an Honors major must satisfy the following:

- 3.4 minimum overall GPA; 3.5 minimum major GPA
- Completion of an Honors thesis and oral defense in coordination with a Classics faculty member
- Completion of two additional cognate courses deemed relevant to the thesis
- Fourth term language proficiency in either ancient Greek or Latin.
- CLCIV 480 topicID \#10 Research Seminar (in addition to a CLCIV 480 Capstone Seminar already required for majors)

Students may also elect CLCIV 495 for 1-2 credits in the Fall and 1-3 credits in the Winter but are not required to do so.

## Classical Languages \& Literatures

May be elected as a departmental major
Effective Winter 2016: 12/14/2015
Honors plan effective Fall 2016 updated 3/22/2016
The skills taught in Latin and Greek are useful in many ways. The critical thinking and analytical skills (gleaned from a thorough knowledge of Latin and Greek) will benefit you in any class you take at the university. Students interested in subjects in the sciences and engineering will find the development of these skills invaluable. All students can benefit from improved English skills, particularly those students interested in Communications, Journalism, Law, and all the Humanities. Many students find Latin and Greek so helpful and fascinating that they choose these languages as a major or minor. Learning Latin and Greek is no more difficult than learning Spanish or French. We teach time-saving language learning strategies and skills in a highly structure format. Because these are ancient languages, we focus primarily only on reading texts. Our department provides free "drop-in" tutoring available to all students in the Elementary Latin and Greek courses.

Requirements for the Major. The major requires study of both Greek and Latin; the student chooses one language as the primary language for the purpose of determining requirements. The student takes a minimum of 9 courses (of at least 3 credits each) including:

1. In the primary language at least 3 courses at the 400 -level or above.
2. In the primary language at least 3 additional courses at the 300 -level or above.
3. In the secondary language, at least one course at the 400 -level or above (300-level courses can't be used in the secondary language).
4. One course selected from CLARCH (221 or 222), CLCIV (101, 102, or 302), or HISTORY (200 or 201).
5. At least one upper-level (300- or 400 -level) course in Greek or Roman civilization, archaeology, or history. Minimum of 3 credits.

Three credits of Independent Study (GREEK 499 and LATIN 499) may be used with written approval of the undergraduate advisor.

Honors Plan. In addition to the above requirements, students pursuing an Honors major must satisfy the following:

- 3.4 minimum overall GPA; 3.5 minimum major GPA
- Completion of an Honors thesis and oral defense in coordination with a Classics faculty member
- Completion of one additional Greek or Latin course at the 420-level or above (CLCIV 480 \& GREEK/LATIN 495 do not satisfy this requirement)
- CLCIV 480 topicID \#10 Research Seminar(Fall term)

Students may also elect GREEK or LATIN 495 (taken in the primary language) for 1-2 credits in the Fall and 1-3 credits in the Winter but are not required to do so.

## Greek (Ancient) Language \& Literature

May be elected as a departmental major
Effective date Winter 2016: 12/14/2015
Honors plan effective Fall 2016 updated 3/22/2016
Prerequisites to the Major. GREEK 101 and 102 or special placement examination.

Requirements for the Major. Requires a minimum of 9 courses (of at least 3 credits each) including:

1. Seven courses in GREEK at the 300 -level or above (at least 4 of these must be at the 400-level or above, usually including GREEK 401 and 402).
2. One introductory course selected from CLARCH 221, CLCIV 101, HISTORY 200.
3. At least one upper-level (300- or 400-level) course in Greek civilization, archaeology, or history. Minimum of 3 credits.

Three credits of Independent Study (GREEK 499) may be used with written approval of the undergraduate advisor.

Honors Plan. In addition to the above requirements, students pursuing an Honors major must satisfy the following:

- 3.4 minimum overall GPA; 3.5 minimum major GPA
- Completion of an Honors thesis and oral defense in coordination with a Classics faculty member
- Completion of one additional Greek course at the 420-level or above (CLCIV 480 \& GREEK 495 do not satisfy this requirement)
- CLCIV 480 topicID \#10 Research Seminar (Fall term)

Students may also elect GREEK 495 for 1-2 credits in the Fall and 1-3 credits in the Winter but are not required to do so.

## Latin Language \& Literature

## May be elected as a departmental major

Effective Winter 2016-12/14/2015
Honors plan effective Fall 2016 updated 3/22/2016
Prerequisites to the Major. One of: LATIN 231 (Honors section) or 232 or 233, or LATIN 295 or RCLANG 295; or special placement examination.

Requirements for the Major. Requires a minimum of 9 courses (of at least 3 credits each) including:

1. Seven courses in LATIN at the 300-level or above; at least 4 of these courses must be at the 400 -level or above and must include at least one, but not more than two, of the entry level advanced courses (LATIN 401, 402, 409, 410)
2. one introductory course selected from CLARCH 222, CLCIV 102 and 302, or HISTORY 201.
3. At least one upper-level (300- or 400 -level) course in Roman civilization, archaeology, or history. Minimum of 3 credits. (300-level must be above 303)

Three credits of Independent Study (LATIN 499) may be used with written approval of the undergraduate advisor.

Honors Plan. In addition to the above requirements, students pursuing an Honors major must satisfy the following:

- 3.4 minimum overall GPA; 3.5 minimum major GPA
- Completion of an Honors thesis and oral defense in coordination with a Classics faculty member
- Completion of one additional Latin course at the 420-level or above (CLCIV 480 \& LATIN 495 do not satisfy this requirement)
- CLCIV 480 topicID \#10 Research Seminar (Fall term)

Students may also elect LATIN 495 for 1-2 credits in the Fall and 1-3 credits in the Winter but are not required to do so.

Teaching Certificate. Students interested in a secondary school teaching certificate with a teaching major or minor in Latin must have Professor Deborah Ross approve their program of study.

Teaching Major in Latin. Thirty credits which must include:

1. Fifteen credits in LATIN beyond LATIN 232, of which 12 must be at the 400 -level or above. Neither LATIN 499 nor 599 may be counted toward the teaching major without permission of the teaching certificate advisor;
2. One course in Latin composition;
3. One course in Classical Archaeology;
4. One course in Roman history;
5. One course in Linguistics.

Teaching Minor in Latin. Twenty credits which must include:

1. Twelve credits in LATIN beyond LATIN 232, of which 9 must be at the 400 -level or above. Neither LATIN 499 nor 599 may be counted toward the teaching minor without permission of the teaching certificate advisor;
2. One course in Roman history;
3. One course in Linguistics.

Professor Deborah Ross has the authority to modify departmental requirements for a teaching major or minor in special cases and in keeping with the general requirements for the teaching certificate.

## Modern Greek Studies

The field of Modern Greek consists of the study of global Hellenism over the last five centuries, including its intersection with the classical tradition in other cultures. Students pursuing the major in Modern Greek Studies study modern Hellenism, with a special emphasis on Greece and the Greek communities of the U.S. They also familiarize themselves with Hellenism's ancient and medieval origins. In addition to acquiring an in-depth knowledge of contemporary Greek language, culture, and history, students gain exposure to a number of disciplines and become aware of distinct methods (literary, historical, anthropological, theoretical / philosophical, etc.) used in the study of civilizations. The major requires detailed learning of the language and firm grounding in the knowledge of culture but also offers familiarity with broader issues of our times such as identity, tradition, transnationalism, globalism, and orientalism. Thus the major provides a broad-based liberal arts education and contributes to the development of critical thinking and related skills, both linguistic and interpretive. The major builds on the great strengths of the Department of Classical Studies and the Program in Comparative Literature, as well as on traditional West European, Balkan, and Mediterranean strengths across the College.

Modern Greek courses cover language, literature, and culture, offering a systematic introduction to the Greek world of the last ten centuries, and especially to its contemporary social reality and intellectual achievement. As part of a liberal arts education, they promote the contextual study, both local and global, of contemporary Greek culture, placing particular emphasis on literary studies, critical theory, cultural politics, ethnicity, and diaspora (especially Greek-American).

The Modern Greek Studies program offers both a major and a minor; interested students should contact Professor Vassilios Lambropoulos.

## Greek (Modern) Language and Culture

May be elected as a departmental major
Effective date Winter 2016: 12/14/2015

Honors plan effective Fall 2016 updated 3/22/2016
Prerequisites to the Major. GREEKMOD 101 and 102 (or MODGREEK 101 and 102).

Requirements for the Major. Minimum of ten courses, distributed as follows:

1. Modern Greek Language: Four (4) terms of Modern Greek language courses at the 200-level and above: GREEKMOD 201, 202, 301, and 302 (or MODGREEK 201, 202, 301, and 302); [205 and 305 are excluded).
2. Modern Greek Literature and Culture: Three courses in Modern Greek literature and culture at the 300-level and above.
3. Structure courses: Three courses, selected in consultation with, and approved by, the department advisor.

Honors plan. In addition to the above requirements, students who have demonstrated superior ability in the language and serious interest in a project of research, may be admitted to a program of advanced study at the beginning of the senior year, leading to the degree of Bachelor of Arts with Honors in Modern Greek Studies. Students pursuing an Honors major must satisfy the following:

- 3.4 minimum overall GPA; 3.5 minimum major GPA
- Completion of an Honors thesis and oral defense in coordination with a Classics faculty member
- CLCIV 480 topic 10 Research Seminar (Fall term)

Students may also elect GREEKMOD 495 for 1-2 credits in the Fall and 1-3 credits in the Winter but are not required to do so.

Advising. Department advising is provided by Professors Vassilios Lambropoulos and Artemis Leontis. Information about scheduling appointments is available from the department office.

## Classical Studies Minors

Students wishing to pursue a minor in Classical Studies must develop a specific plan for its completion in consultation with the department's designated advisor. Appointments may be scheduled at 2160 Angell Hall.

## Classical Archaeology

The Classical Archaeology minor is not open to students with a major in Classical Archaeology or Classical Civilization or any other minor in the Department of Classical Studies

The minor in Classical Archaeology is intended to provide students with the opportunity to explore the archaeology and art of the ancient Mediterranean world. Students will acquire a broad archaeological, historical and cultural overview, before turning to more specific courses dealing with the artistic production and material conditions of Greek and Roman society.

## Prerequisites to the Minor: CLARCH 221, 222, or 323.

Requirements for the Minor: At least 16 credits of courses, to be chosen from the following three categories as stated:

1. Introductory courses: At least one broad introductory course in classical archaeology, other than the course elected to meet the prerequisite (CLARCH 221, 222, or 323).
2. Civilization or History courses (Greek or Roman): At least one broad introductory course (CLCIV 101, 102, 302; HISTORY 200, 201).
3. Upper-Level Classical Archaeology courses: At least three courses at the 300- or 400-level in CLARCH.

## Classical Civilization

The Classical Civilization minor is not open to students with a major in Classical Civilization or any other minor in the Department of Classical Studies

This minor is designed to provide a grounding in ancient Greek and Roman civilization for those unable to elect Classical Civilization as a major. It requires students to learn about the history, literature, religion,
philosophy, and material culture of ancient Greece and Rome, primarily through the close reading and analysis of original Greek and Latin texts in translation. Confrontation with how people lived and thought in ancient Greece and Rome allows students to gain an understanding of the relation between the ancient and modern world in all its complexity, and gives them valuable intellectual tools to deal with issues in many aspects of modern life. Courses in Classical Civilization also enhance students' ability to think critically and improve their competence in written and oral communication.

Prerequisites to the Minor: A minimum of two courses from the following choices, for a total of 8 credits. One course must emphasize Greek culture and the other course must emphasize Roman culture:

- CLCIV 101 (The Ancient Greek World)
- CLCIV 102 (The Ancient Roman World)
- HISTORY 200 (Greece to 201 B.C.)
- HISTORY 201 (Rome)
- GTBOOKS 191 (Great Books)

Requirements for the Minor: At least five upper-level courses (minimum 15 credits) in Classical Civilization at the 300- or 400-level, with at least one of these at the 400-level. These courses must include at least one course that satisfies the Upper-Level Writing Requirement or be one of the "Capstone Seminars," either CLCIV 480 or CLCIV 481.

One of the 300-level courses in Classical Civilization may be substituted for with any of the following

1. One course (minimum 3 credits) in Classical Archaeology.
2. One course (minimum 3 credits) in Ancient Greek or Roman history (other than one taken as a prerequisite to the minor).
3. One course in ancient Greek or Latin at the third-term level or above.
4. MODGREEK 325, "Athens Present and Past".

## Greek (Ancient) Language and Literature

The Greek (Ancient) Language and Literature minor is not open to students with a major in Greek (Ancient) Language and Literature or Classical Languages or any other minor in the Department of Classical Studies

This minor is designed to provide a basic, but contextual and broad, familiarity with Greek language and literature and the civilization of ancient Greece. More specifically, it requires students to study, at the intermediate and advanced level, Greek and authors writing poetry and/or prose, but at the same time it acquaints the student with the broader historical, social, and cultural content in which these authors lived and worked.

Prerequisite to the Minor: GREEK 301, or equivalent as determined by departmental placement examination.

Requirements for the Minor: At least 16 credits of courses, to be chosen from the following three categories as stated:

1. Greek Language and Literature courses: at least two upper-level courses, above GREEK 301.
2. Greek Civilization courses: at least one broad introductory course (CLCIV 101, CLARCH 221, or HISTORY 200).
3. Upper-Level courses: at least one upper-level (300- or 400-level) course in Greek civilization, archaeology, or history.

## Latin Language and Literature

The Latin Language and Literature minor is not open to students with a major in Classical Languages or any other minor in the Department of Classical Studies

This minor is designed to provide a basic, but contextual and broad, familiarity with Latin language and literature and the civilization of ancient Rome. More specifically, it requires students to study, at the intermediate and advanced level, Latin and authors writing poetry and/or prose, but at the same time it acquaints the student with the broader historical, social, and cultural content in which these authors lived and worked.

Prerequisite to the Minor: LATIN 232, or equivalent as determined by departmental placement examination.

Requirements for the Minor: At least 16 credits of courses, to be chosen from the following three categories as stated:

1. Latin Language and Literature courses: at least two upper-level courses.
2. Roman Civilization courses: at least one broad introductory course (CLCIV 102 or 302, CLARCH 222, or HISTORY 201).
3. Upper-Level courses: at least one upper-level (300- or 400-level) course in Roman civilization, archaeology, or history.
4. Another course from numbers 1,2 , or 3 above.

## Modern Greek Studies

Effective date Winter 2016: 12/14/2015
The Greek (Modern) Language and Culture minor is not open to students with a major in Greek (Modern) Language and Culture or any other minor in the Department of Classical Studies
This minor is designed to provide a basic, but contextual and broad, familiarity with Modern Greek language, literature, and culture. More specifically, it requires students to study, at the intermediate and advanced level, Modern Greek and authors writing poetry and/or prose, but at the same time it acquaints the student with the broader historical, social, and cultural content in which these authors lived and worked. The minor is for students who have a strong interest in contemporary Hellenism and who wish to explore it, under close and careful supervision, in a meaningful fashion.

Prerequisite to the Minor: GREEKMOD 201 (or MODGREEK 201), or equivalent as determined by departmental placement examination.

Requirements for the Minor: At least 16 credits of courses, to be chosen from the following three categories as stated:

1. Modern Greek Language and Literature: at least two courses in modern Greek language and literature, above GREEKMOD 201 (or MODGREEK 201).
2. Modern Greek culture: at least one broad introductory course (MODGREEK 302 can be used for this requirement if not used for the language and literature requirement)
3. Upper-Level courses: at least two upper-level (300- or 400-level) courses in modern Greek diaspora and travel.

Substitutions. Any appropriate course taught in the area of Modern Greek Studies in departments other than Classical Studies must be approved by the program advisor and the Chair in Modern Greek.

## Climate and Space Sciences and Engineering (CLaSP)

Climate and Space Sciences and Engineering
College of Engineering
2204 Space Research Building
(734) 763-6234 (phone)
(734) 763-0437 (fax)
clasp.engin.umich.edu
e-mail: clasp--um@umich.edu

## Not an LSA major

Climate and Space Sciences and Engineering, a department in the College of Engineering, is the only one that combines science and engineering, offering an integrated view of Earth and space. The blending of atmospheric and space sciences with engineering puts CLaSP at the forefront of the movement to understand the Earth, atmosphere, planets, solar system and space weather in a whole systemic view, rather than individual components. Although Climate and Space Sciences and Engineering courses are offered through the College of Engineering, several courses are approved by LSA to earn LSA credits and some may be used to meet distribution requirements. Other Climate and Space Sciences and Engineering courses are listed in the College of Engineering Bulletin, and in the Schedule of Classes as part of the offerings of the College of Engineering in the Climate and Space Sciences and Engineering subsection and may be elected by LSA students as a part of non-LSA course work.

Students who have a serious professional interest in the field should consult the department.

## Climate and Space Sciences and Engineering Minor

## Effective Winter 2016

Exclusions. Not open to students with CLaSP majors
Climate and Space Sciences and Engineering spans a broad range of geoscience and space science and engineering disciplines and attempts to understand the complex, coupled Earth and Space system. It is inherently multidisciplinary, involving departments from the College of Engineering and from other colleges

The minor will attract and enable undergraduate students throughout the college and university to better prepare them for their chosen profession where knowledge of the climate and space science and engineering is essential for solving global problems.

The primary goal of the Climate and Space Sciences and Engineering (Climate \& Space) Minor is to provide exposure to research opportunities
in atmospheric, climate and space science and engineering for those students who wish to work in the geoscience or space industry but are not majoring in Climate and Space Sciences and Engineering. The secondary goal is to increase awareness of the Climate and Space Sciences and Engineering and the educational and research opportunities within Climate \& Space within the College of Engineering as a whole.

Students must submit his or her program of study for the minor to the Climate \& Space undergraduate advisor and attain a minimum GPA of 2.0 in the designated courses

## Prerequisites to the Minor

- Mathematics: MATH 115 and 116
- Physics: PHYSICS 140/141 and 240/241

Requirements for the Minor. A minimum of 15 credits, selected:
A. Introductory Courses. One of the following courses that provide an overview of the terminology, physics, mathematics, tools and approaches used in the different areas of specialization within Climate \& Space:

- CLIMATE 102 (Meteorology)
- CLIMATE 105 (Climate Science and Impacts Engineering)
- SPACE 101 or 103 (Space Science or Space Engineering)
B. Earth and Space System Evolution: CLIMATE 320 and 321; EARTH 320 and 321 ; or SPACE 320 and 321
C. Core Focus Courses. Select at least two courses (and a minimum of 6 credits) from one the following tracks:
- Meteorology:
o CLIMATE 350, 380, 411, 414, 422, 440, 462, 463
o EARTH 350, 381
o ENSCEN 463
- Climate Science and Impacts Engineering:
o CLIMATE 350, 380, 401, 451, 467, 4XX ("Carbon Climate Interactions"), 473, 474, 480
o EARTH 350, 381, 401
- Space Science:
o SPACE 370, 405, 462, 477, 495
- Space Engineering:
o AEROSP 581
o SPACE 4XX ("Space Environments"), 405, 462, 581
Advising. Students should get approval from CLASP Undergraduate Advisor when declaring a CLASP minor. Students must have registered no later than the last day to add courses for the semester in which they complete the last courses for the minor.


# Weinberg Institute for Cognitive Science 

Weinberg Institute
6530 Haven Hall, Suite 6C51
505 South State Street
(734) 615-3275 (phone)
(734) 936-3406 (fax)
www.Isa.umich.edu/weinberginstitute
e-mail: cogsciprog@umich.edu
The Weinberg Institute for Cognitive Science is an institute co-sponsored by the Departments of Linguistics, Philosophy, and Psychology, and supervised by the Cognitive Science Executive Committee.

## Cognitive Science

2/18/2016 Effective Fall 2016
May be elected as an interdepartmental major, jointly administered by the Departments of Linguistics, Philosophy, and Psychology, and supervised by the Cognitive Science Executive Committee

Cognitive science is the cross-disciplinary study of mind, brain, and behavior. This study is conducted at multiple levels of analysis, ranging from theories of neuronal processing, to computational models of how information is processed, to evolutionary models intending to explain various features of mental architecture. Recent advances in cognitive science - made possible in large part by crossing conventional disciplinary and departmental boundaries - are distinguished by efforts to build comprehensive theories that integrate these multiple levels of analysis. Through rigorous, multi-disciplinary investigations, the field continues to reformulate fundamental and enduring questions, while posing new ones, concerning the nature of, for example, thought, reason, decision, language, and knowledge.

The Weinberg Institute for Cognitive Science reflects these developments by coordinating interdisciplinary course offerings and research training for students seeking a degree in Cognitive Science. Tracks of study within the major provide primary (but concomitantly interdisciplinary) emphases on (a) computation and cognition, (b) decision, (c) language, and (d) philosophy of mind. The major is therefore intended for students interested in a natural or social science degree in the behavioral and brain sciences with a combined focus and breadth not accommodated by a major within any single department.

## Special Program Policies

Cognitive Science majors must earn a grade of at least C in all courses taken to satisfy the requirements of the major (including the major gateway/prerequisite course, COGSCI 200). [Effective Fall 2016]

Distribution. Students in the Cognitive Science major may count introductory courses in PSYCH, LING, PHIL, ECON, EECS toward their College Area Distribution requirement, although these introductory courses cannot simultaneously count as core courses in the major. COGSCI 200 will not count toward distribution for Cognitive Science majors.

Double Majoring. Cognitive Science majors may double major in BCN, Linguistics, Neuroscience, Philosophy, Psychology, or any other fields. However, to ensure that these students have devoted significant, independent effort to each major, only three courses can be counted toward both majors.

## Prerequisites to the Major.

1. COGSCI 200: Introduction to Cognitive Science. Students may declare the Cognitive Science major after they have completed COGSCI 200.
2. Each track has prerequisites for that track's core courses. Courses used to satisfy track elective requirements may have additional prerequisites.

## Requirements for the Major.

A minimum of 27 credits is required. The major is structured into four tracks, each representing a major area of research within contemporary cognitive science. Each track consists of:

1. Three required courses
2. Five elective courses (chosen from a track-specific list)
3. Senior capstone experience (chosen from courses identified each year by the Cognitive Science Executive Committee)

The combined set of students' required and elective courses must be selected from a minimum of three departments.

## Decision and Cognition Track

The study of decision and choice is a lively area of contemporary cognitive science inquiry. The Decision and Cognition track provides students with sustained, cohesive instruction in a single, important content area: contemporary approaches to decision-making and choice. Students are presented with theoretical approaches to judgment and decision-making from psychology, emerging neurocircuit models of reward and reinforcement from neurobiology, algorithmic models of planning and action selection from computer science, formal approaches to rational choice (e.g., rational choice theory and game theory) from philosophy and political science, and cutting-edge approaches to understanding irrationality from behavioral economics. Critical thinking skills are honed as students learn about a well-defined content area from diverse perspectives and across multiple levels of analysis. The required courses in the Decision and Cognition track give students an introduction to historically influential approaches to decision-making drawn from three major fields. Students then have the opportunity to take coursework in a number of disciplines that approach decision-making from diverse but complementary theoretical perspectives.

## Prerequisites for required courses

1. One of:
a. STATS 250: Introduction to Statistics and Data Analysis
b. MATH 425/STATS 425: Introduction to Probability
2. ECON 401: Intermediate Microeconomic Theory (if select ECON 408/PHIL 408)
3. One course in calculus (MATH 115, 116, 121, 156, 175, 176, 185, 186, 215,295 , or 296)
4. One introductory course in Philosophy

## Required Track Courses

1. PHIL 361: Ethics
2. One of:
a. PHIL 443: Foundations of Rational Choice Theory
b. ECON 408/PHIL 408: Philosophy and Economics
3. PSYCH 449: Decision Processes

Electives. Five courses selected from:

- ECON 309: Experimental Economics
- ECON 408/PHIL 408: Philosophy and Economics
- ECON 490: Topics in Microeconomics: Economics and Psychology
- EECS 492: Introduction to Artificial Intelligence
- PHIL 340: Minds and Machines
- PHIL 366: Introduction to Political Philosophy
- PHIL 408/ECON 408: Philosophy and Economics
- PHIL 429: Ethical Analysis
- PHIL 443: Foundations of Rational Choice Theory
- POLSCI 391: Modeling Political Processes
- POLSCI 490: Game Theory and Formal Models
- PSYCH 335: Introduction to Animal Behavior
- PSYCH 345: Introduction to Human Neuropsychology
- PSYCH 346: Learning and Memory
- PSYCH 348: Psychology of Thinking
- PSYCH 433: Biopsychology of Motivation
- PSYCH 448: Mathematical Psychology
- PSYCH 476: Positive Psychology


## Computation and Cognition Track

A foundational idea of cognitive science is that mental processes are computational, and computation remains central to (but not the exclusive domain of) the field. This track requires students to take coursework in psychology and computer programming. Subsequent depth courses emphasize - although not exclusively so -computational and formal methods including machine learning, computational linguistics, rational choice theory, and mathematical psychology.

## Prerequisites for the required courses

1. One of PSYCH $111,112,114,115$, or 116
2. EECS 203 Discrete Math
3. EECS 280 Programming and Introductory Data Structures

## Required Track Courses

1. One of
a. PSYCH 240 Introduction to Cognitive Psychology
b. PSYCH 245 Cognitive Neuroscience
2. EECS 281 Data Structures and Algorithms
3. EECS 492 Introduction to Artificial Intelligence)

Electives. Five courses selected from:

- EECS 445: Introduction to Machine Learning
- EECS 595/LING 541/SI 561: Natural Language Processing
- LING 313: Sound Patterns
- LING 315: Introduction to Syntax
- LING 316: Aspects of Meaning
- LING 347/PSYCH 349: Talking Minds
- LING 352/PSYCH 352: Development of Language and Thought
- LING 441: Computational Linguistics
- LING 447/PSYCH 445: Psychology of Language
- LING 541/EECS 595/SI 561: Natural Language Processing
- PHIL 345: Language and Mind
- PHIL 383: Knowledge and Reality
- PHIL 417: Logic and Artificial Intelligence
- PHIL 443: Foundations of Rational Choice Theory
- PHIL 450: Philosophy of
- PHIL 482: Philosophy of Mind
- PSYCH 345: Introduction to Human Neuropsychology
- PSYCH 346: Learning and Memory
- PSYCH 348: Psychology of Thinking
- PSYCH 349/LING 347: Talking Minds
- PSYCH 352/LING 352: Development of Language and Thought
- PSYCH 355: Cognitive Development
- PSYCH 445/LING 447: Psychology of Language
- PSYCH 448: Mathematical Psychology
- PSYCH 449: Decision Processes
- SI 561/EECS 595/LING 541: Natural Language Processing


## Language and Cognition Track

Because human language is universal in the species and grounded in human cognition and biology, linguistic inquiry was an integral component of the cognitive science revolution. Contemporary approaches to language synthesize models and findings from multiple disciplines, and the proposed curriculum is correspondingly interdisciplinary. The Language and Cognition track gives students a solid theoretical introduction to language through required coursework in linguistics, and in the philosophy and psychology of language. Further coursework broadens the investigation of language to include topics in computational linguistics and computer science, formal methods, and language development and learning.

## Prerequisites for the required courses

1. One introductory course in Linguistics (LING 111, 209, or 210)
2. Advisory: one of PHIL 296, 303, or 414
3. Advisory: one of PSYCH 111, 112, 114, or 115

## Required Track Courses

1. One of:
a. LING 313: Sound Patterns,
b. LING 315: Introduction to Syntax,
c. LING 316: Aspects of Meaning
2. One of:
a. PHIL 345: Language and Mind
b. PHIL 409: Philosophy of Language
c. PHIL 426/LING 426: Philosophy \& Linguistic Theory (effective Fall 2016)
3. LING 347/PSYCH 349: Talking Minds

Note: Students in the Language and Cognition Track may not elect PHIL 426 as both an elective and as one of the required tack courses. (effective Fall 2016)

Electives. Five courses selected from:

- EECS 376: Foundations of Computer Science
- EECS 492: Introduction to Artificial Intelligence
- EECS 595/LING 541/SI 561: Natural Language Processing
- LING 313: Sound Patterns
- LING 315: Introduction to Syntax
- LING 316: Aspects of Meaning
- LING 342: Perspectives on Bilingualism
- LING 351/PSYCH 344: Second Language Acquisition
- LING 352/PSYCH 352: Development of Language and Thought
- LING 412: Speech Perception
- LING 421: Morphology
- LING 426/PHIL 426: Philosophy \& Linguistic Theory
- LING 440: Language Learnability
- LING 441: Computational Linguistics I
- LING 442: Computational Linguistics II
- LING 446: Comparative
- LING 447/PSYCH 445: Psychology of Language
- LING 541/EECS 595/SI 561: Natural Language Processing
- PHIL 340: Minds and Machines
- PHIL 345: Language and Mind
- PHIL 409: Philosophy of Language
- PHIL 414: Mathematical logic
- PHIL 426/LING 426: Philosophy \& Linguistic Theory
- PSYCH 344/LING 351: Second Language Acquisition
- PSYCH 352/LING 352: Development of Language and Thought
- PSYCH 445/LING 447: Psychology of Language
- SI 561/EECS 595/LING 541: Natural Language Processing


## Philosophy and Cognition Track

There is extensive interaction between contemporary philosophy, especially philosophy of mind and ethics, and cognitive science. Philosophers have long posed fundamental questions about the nature of mind, the relationship between the mental and physical, and the nature of human agency. Cognitive science provides a rich and ever expanding body of theory, models, and findings that are relevant to these timeless philosophical questions. The Philosophy and Cognition track requires coursework in core philosophical, formal and cognitive approaches to mind. More in-depth coursework allows students to deepen their understanding of the philosophical problems and analytical enigmas raised by language and other symbolic systems, artificial intelligence, inference and reasoning, and decision-making.

## Prerequisites for the required courses

1. One of PSYCH $111,112,114$, or 115
2. One introductory course in Philosophy
3. Advisory: One of
a. PHIL 345: Language and Mind
b. PHIL 383: Knowledge and Reality

## Required Track Courses

1. One of:
a. PSYCH 240: Introduction to Cognitive Psychology
b. PSYCH 245: Cognitive Neuroscience
2. One of:
a. PHIL 340: Minds and Machines
b. PHIL 482: Philosophy of Mind
3. One of:
a. PHIL 303: Introduction to Symbolic Logic
b. PHIL 305: Introduction to Formal Philosophical Methods

Electives. Five courses selected from:

- LING 315: Introduction to Syntax
- LING 316: Aspects of Meaning
- LING 347/PSYCH 349: Talking Minds
- LING 352/PSYCH 352: Development of Language and Thought
- LING 426/PHIL 426: Philosophy \& Linguistic Theory (effective Fall 2016)
- LING 447/PSYCH 445: Psychology of Language
- PHIL 340: Minds and Machines
- PHIL 345: Language and Mind
- PHIL 361: Ethics
- PHIL 383: Knowledge and Reality
- PHIL 389: History of Philosophy: Seventeenth and Eighteenth Centuries
- PHIL 409: Philosophy of Language
- PHIL 413: Formal Philosophical Methods
- PHIL 414: Mathematical Logic
- PHIL 417: Logic and Artificial Intelligence
- PHIL 420: Philosophy of Science
- PHIL 426/LING 426: Philosophy \& Linguistic Theory (effective Fall 2016)
- PHIL 443: Foundations of Rational Choice Theory
- PHIL 450: Philosophy of Cognition
- PHIL 482: Philosophy of Mind
- PHIL 485: Philosophy of Action
- PSYCH 345: Introduction to Human Neuropsychology
- PSYCH 346: Learning and Memory
- PSYCH 348: Psychology of Thinking
- PSYCH 349/LING 347: Talking Minds
- PSYCH 352/LING 352: Development of Language and Thought
- PSYCH 355: Cognitive Development
- PSYCH 445/LING 447: Psychology of Language
- PSYCH 448: Mathematical Psychology
- PSYCH 449: Decision Processes

Honors Plan. The Honors plan within Cognitive Science is designed for students with strong academic records who wish to pursue a research project. Interested students will apply for the Honors plan in their junior year. The application will include a research proposal and must be signed
by the faculty mentor. Applications will be reviewed by the Cognitive Science Executive Committee to ensure that, for qualified students, the mentor-mentee relation is established prior to the senior year and the project falls within cognitive science.

Students in the Cognitive Science Honors plan will register for at least two terms of independent study (e.g., LING 495 and 496, PHIL 498 and 499, PSYCH 424 and 426), usually in the Fall and Winter terms of their senior year, with their faculty mentor in Linguistics, Philosophy, or Psychology. Honors students must complete an Honors thesis, which will be evaluated by two faculty, the faculty mentor and a second reader from a different department (which might include, for example, Biology, Computer Science, or Economics).

Advising. A three-tier advising system exists.

- Peer advisors (Tier $\mathbf{1}$ ) will help majors select a major track, identify courses that suit their interests, and plan course schedules.
- Students will meet with advisors in the major (student services staff; Tier 2) when declaring, making course substitutions, discussing transfer/study abroad credit evaluations, preparing major release forms, and more.
- Students will meet with faculty advisors (Tier 3) for more detailed discussions about their undergraduate preparation, graduate school, and research opportunities (including possible post-graduate training opportunities). Faculty advisors are faculty in Linguistics, Philosophy, and Psychology.

Although all tracks are interdisciplinary, each has a particularly heavy major of courses in one of the sponsoring units, and advisors for a given track will be primarily selected from that unit:

- Computation and Cognition
- Decision and Cognition
- Language and Cognition
- Philosophy and Cognition

Advising appointments can be made at:
https://webapps.Isa.umich.edu/AdvAppts/AA_StuSelfSvc1.aspx?ctgy=COG
SCl or by contacting cogsciprog@umich.edu

## Communication Studies

5370 North Quad
105 S. State Street
(734) 764-0420 (phone)
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www.Isa.umich.edu/comm
e-mail: comm.studies.dept@umich.edu
Mass communication is a powerful and complex set of processes. In its form it both shapes and is shaped by the social and cultural contexts in which it occurs. Mass communication involves the creation, dissemination, and reception of many kinds of messages. Their meanings structure the ways people and societies understand themselves and their world, as well as their politics, social relations, and identities.

## Communication Studies

May be elected as a departmental major

## 2/18/2016 Effective Fall 2016

The mission of the Communication Studies major is to study and teach about the mass media and emerging media: their evolution, their effects, their uses by everyday people, and their regulation and industry practices. We are dedicated to cultivating thorough-going media literacy among our students, and to producing cutting-edge scholarship about the media's impact on individuals and society.
Communication Studies focuses on history, content and impact of mass media and new, emerging media. Four crucial reasons for studying mass media:

- Enormous influence on our culture and those around the world
- Role in shaping our individual and collective identities (including our attitudes toward others)
- Centrality to every day life, politics, the economy, and public policy
- Impact on democratic institutions

Key elements of the major are:

- Introductory classes taught by world-renowned faculty
- Small, upper-level seminars examining a range of issues like impact of mobile communications, gender and media, media and public opinion, health and media, media and globalization, media effects on individuals and society
- Emphasis on critical thinking and writing
- Combining classroom training with internship opportunities in a variety of media-related fields
- Opportunity to study abroad and to participate in our Honors program
- Opportunity to network with outstanding U-M alumni through our annual Alumni Connection and Entertainment Media Career Forum
Communication Studies Advising. Advising appointments are only scheduled online at: www.lsa.umich.edu/comm/undergraduate. Students should schedule an advising appointment on the online appointment system with the undergraduate program coordinator to declare a Communications Studies major, discuss progress in the major, or to complete Major Release Forms. Students seeking approval for domestic transfer credit toward the major can meet with any faculty advisor. Students seeking approval for transfer credit from study abroad must meet with the department faculty foreign credit evaluator. Additionally, the department's faculty provide regular office hours to discuss current courses or other issues.

Prospective majors can schedule a pre-major appointment with the undergraduate program coordinator anytime, but no later than the second term of the sophomore year. Most majors continue to see an advisor at least once a year. In any case, students must consult with the undergraduate program coordinator during the first term of their senior year to ensure that required courses will be completed for graduation.

Special Departmental Policies. An "in-person" department advising appointment is required for students to declare a Communication Studies major. Students cannot declare by email, phone, or fax. All prerequisite courses must be completed before the student can declare the major.

## Prerequisites to the Major

Four prerequisite courses (COMM 101, 102, 121 and 122) must be completed prior to declaration. COMM 101, 102, 121 and 122 must be completed with a grade of C (2.0) or higher in each course. Students must declare no later than second semester junior year.

Additional information can be found on the department website at www.lsa.umich.edu/comm/undergraduate.

## Requirements for the Major

At least 24 credits in Communication Studies. These must include the following:

1. Core Areas of Communication Study: Two courses, 8 credits, from COMM 251, 261, 271 or 281.
2. Advanced Communication Study: A minimum of 16 credits of COMM courses numbered 300 and above, must include one ULWR course from courses numbered 350-399 (4 credits); one Capstone seminar from courses numbered 450-499 ( 3 credits); plus 9 additional COMM elective credits at the 300-400 level. Undergraduate Internship (COMM 321) may not be included in this requirement, and no more than three credits of independent reading/research and three credits of Honors seminar courses can be used to meet this requirement.
In order to ensure that majors can enroll in required courses, up to $75 \%$ of spaces in many 300- and 400-level Communication Studies courses are reserved for declared majors. All spaces in the Capstone seminars are reserved for declared senior Communication Studies students.

## Only one course from COMM 450-499 may count toward the major.

Honors Plan. Qualified students are encouraged to undertake an Honors plan. The Honors Program in Communication Studies is available in the senior year to students with a grade point average by their final term of junior year of 3.5 in Communication Studies courses and 3.4 overall. Application and formal admission by the Department are required. Qualified students should contact the Department's Honors department advisor as early as possible for curricular planning, but applications for Honors plan are generally accepted only after February 1 of the student's junior year. In addition to satisfying all regular requirements for the major, an Honors plan must also include:

- STATS 250 or equivalent: All Honors majors should have completed, or be taking in their senior year, STATS 250 or an equivalent. All Honors majors are expected to have completed a statistics course before they start the Honors sequence in their senior year. Under certain circumstances, the Honors advisor has the power to waive this requirement in cases that seem appropriate.
- Senior Honors Seminars: COMM 491 and 492, a two-term seminar sequence involving the design and completion of an Honors thesis.


# Comparative Literature 

2015 Tisch Hall
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e-mail: complit.info@umich.edu
Comparative Literature is a discipline that examines literature across national, historical, and linguistic boundaries. Literary movements, periods, genres, criticism, and theory are studied from an international viewpoint as are the relationships between literature and the other arts (e.g., film, painting, music) and literature and such disciplines as psychology, philosophy, anthropology, history, and women's studies.

## Comparative Literature

May be elected as an interdepartmental major
The major in Comparative Literature provides excellent preparation for professional studies in fields such as law, journalism, and business, as well as preparation for graduate work in the humanities.

Undergraduate majors will establish individualized programs of study in close consultation with both the major and faculty advisors. These programs will offer students the opportunity to increase skills in analytical reading and argumentative writing and to develop an understanding of the interrelationships among several literary traditions. Students who concentrate in comparative literature will acquire training in one or more second languages, study at least two literatures (one of which may be English) in the original languages, and acquaint themselves with some of the essential writings in the theory of literature. Students who choose to write a senior thesis will find it an opportunity for synthesis of earlier course work and further intellectual exploration.

Prerequisites to the Major. Foreign languages necessary for the study of foreign literature courses at the 300-level.

Requirements for the Major. 33 credits minimum, according to the following plan:

- 24 credits: A complementary grouping of literature courses at the 300level or above in a minimum of two languages, one of which may be English. At least 12 credits are required in each literature.
- If a student chooses to work in English as one of the chosen languages, then a maximum of 18 credits of undergraduate courses in COMPLIT may be applied to the major, of which the maximum number of credits at the 200 -level is six. Students may also combine with courses in COMPLIT other courses in the national literature departments and related fields, in consultation with the undergraduate advisor. 100level courses do not count toward the major.
- 3 credits: The senior seminar, COMPLIT 495, is required for all students in the major.
- 6 credits: Comparative Literature electives at the 200 level or above. COMPLIT 496 ( 3 credits), for those writing an Honors thesis during the last term may be used. (Maximum of 6 credits of 200-level COMPLIT courses may be used in the major.)
Courses will be chosen in consultation with the undergraduate advisor in Comparative Literature based on a robust theoretical or organizational principle.

Honors Plan. To be eligible for an Honors plan in Comparative Literature, students should have a cumulative grade point average of at least a 3.4, and a 3.5 grade point average in courses counting toward the major. Students who elect an Honors degree will write an Honors thesis during the final year of their course work.

Advising. Prospective majors should consult the Comparative Literature department advisor as early as possible about developing a challenging and unified interdepartmental program of study.

## Translation Studies Minor

The Minor in Translation Studies gives students an opportunity to learn about diverse histories, theories, and practices of translation, through a flexible sequence of courses selected from different departments, including at least one translation course in the Department of Comparative Literature.

The minor is intended for students who would like to build on LSA's language requirement to explore translation between languages; it is also designed with flexibility for students who would like to explore the concept of translation more broadly as an interaction between cultures, media, discourses, and disciplines. The minor can therefore be integrated into diverse programs of study

The goals of the minor are:

1. to make translation more visible to students in their courses, their communities, and in the world at large;
2. to promote critical and creative reflection on translation, and encourage students to pursue various translation activities;
3. to introduce students to a wide range of academic, creative, and career opportunities related to translation.

While the Minor in Translation Studies is not intended to certify students as professional translators or interpreters, the minor may prepare students to pursue certification or other professional credentials in translation after graduation.

## Prerequisites to the Minor: None.

Requirements for the Minor: During their first meeting, the student and the Translation Studies advisor will devise a plan to satisfy the requirements. Any changes to the plan must be approved by the Translation Studies advisor, who will provide ongoing advising regarding course selection and planning for the capstone project.

The Minor in Translation Studies requires a minimum of 15 credits of courses and at least two courses in Comparative Literature, and a minimum of 12 credits in upper-level courses.

- 3 credits: either COMPLIT 200: Translation Across Disciplines or COMPLIT 322: Translating World Literatures.
- $\mathbf{3}$ credits: An upper-level course (taught at the University of Michigan or taken for credit during Study Abroad) that develops skills in a language that the student will use for the capstone translation project. As a rule, an approved course plan for the Minor in Translation Studies will include at least one upper-level course in a second language. However, students interested in translating across different media, technologies, or disciplines may petition for exception to the language rule, by proposing an upper-level course that develops other skills relevant to the capstone translation project.
- 6 credits: two upper-level courses with a central component on translation (taught in any department at the University of Michigan, or taken for credit during Study Abroad). Students may select courses from a pre-approved list, or propose courses for approval (with an explanation of the translation component and its relevance to their course plan for the Minor).
- 3 credits: A capstone translation project, completed either while taking COMPLIT 495: Senior Seminar (offered every fall) or as a 3credit Independent Study (in exceptional cases, with prior approval).

No course will count towards the minor in translation studies unless the student receives a grade of $C$ - or better.

Advising. The Chair of the Department of Comparative Literature will designate a faculty member to serve as Translation Studies Adviser. The role of the Adviser will be:

1. to provide information for students who are interested in applying for the Minor
2. to meet at least once a semester with students who are accepted to the minor to discuss progress on their approved course plan
3. to review changes and petitions for approval in individual course plans
4. to help coordinate plans for capstone translation projects.

# Center for the Study of Complex Systems (CSCS) 

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The Center for the Study of Complex Systems (CSCS) is a broadly interdisciplinary graduate certificate program at the University of Michigan designed to encourage and facilitate research and education in the general area of nonlinear, dynamical, and adaptive systems. The Center is based on the recognition that many different kinds of systems which include selfregulation, feedback or adaptation in their dynamics, may have a common underlying structure despite their apparent differences. Moreover, these deep structural similarities can be exploited to transfer methods of analysis and understanding from one field to another. In addition to developing deeper understandings of specific systems, interdisciplinary approaches should help elucidate the general structure and behavior of complex systems, and move us toward a deeper appreciation of the general nature of such systems.

## Minor in Complex Systems

Over the past twenty years, the ideas and methodologies that underpin the science of complex systems have gained a foothold in the research agendas of many of the world's leading universities. This trend can be explained by the resonance of the complexity paradigm and its focus on core concepts of networks, nonlinear interdependence, adaptation, and diversity to current scientific and social challenges and opportunities. These include climate change, epidemics, ecosystem and financial system robustness, genetic engineering, sustainability science, health sciences, and ethnic conflict.

Academic research on nonlinear systems, networks, evolutionary and adaptive systems, emergence, and diversity using mathematics, agent based models, and numerical computation increases with each passing day at think tanks, universities, and laboratories. Most leading graduate programs in physical, biological, and social sciences now include courses that fall under the rubric of complexity science. Many of these courses involve agent based modeling and numerical analysis. At the same time, government and private sector demand for students with skills in modeling, understanding of systems level thinking, and deep understandings of the roles of networks and diversity grows.

The minor in Complex Systems is designed to give students an understanding of the basic concepts of complexity science and to learn how those concepts can be applied within a functional area. It provides an opportunity for majors in other departments to take a coherent curriculum in complexity and modeling that complements their major field of study. This minor requires foundational courses in complex systems theory and modeling. Students are encouraged to attend research seminars and book club meetings run by CSCS. This will provide an opportunity for undergraduates to engage intellectually with students and faculty from a range of fields.

Prerequisites to the Minor: There will be no formal prerequisites but students who have not taken calculus may find some of the courses difficult. Therefore, previous experience with calculus is strongly recommended

Requirements for the Minor: Students are required to elect 15 credits (5 courses) including upper-level courses in complex systems within one of four areas of focus: (1) social sciences, (2) biological science, (3) physical science and engineering, or (4) complex systems theory and methods.
A. Core Courses (Take 2 of 4). We require students to take at least one of the modeling courses so that students develop the skills necessary for the upper level classes.

- CMPLXSYS 270: Introduction to Agent-Based Modeling (ABM)
- CMPLXSYS 281 / POLSCI 381: Applied Complex Systems: Emergent Challenges
- CMPLXSYS 501: An Introduction to Complex Systems
- CMPLXSYS 511: Theory of Complex Systems
B. Elective Courses. Students must take two courses from one section and one course from another section. The final course can be from this list or a course not on this list as long as it is approved by the CSCS Director. Additional cross-cutting courses such as MATH 295: Honors Mathematics I can also be taken as an elective and will count for any of the four areas, with approval from the CSCS Director.


## I. Physical Science \& Engineering

- BIOINF 463 / MATH 463 / BIOPHYS 463: Mathematical Modeling in Biology
- BIOPHYS 463 / MATH 463 / BIOINF 463: Mathematical Modeling in Biology
- CMPLXSYS 470 / PHYSICS 470: Experiments in Nonlinear Dynamics
- CMPLXSYS 520 / PHYSICS 580: Empirical Analysis of Nonlinear Systems
- CMPLXSYS 535 / PHYSICS 508: Network Theory
- CMPLXSYS 541 / PHYSICS 413: Introduction to Nonlinear Dynamics and the Physics of Complexity
- EECS 492: Introduction to Artificial Intelligence
- EECS 587: Parallel Computing
- EECS 598: Special Topics (section titled "Algorithms for Robotics")
- ENGR 371 / MATH 371: Numerical Methods for Engineers and Scientists
- HONORS 493: College Honors Seminar (section titled "Introduction to Networks")
- MATH 176: Explorations in Topology and Analysis (Nonlinear Systems and Chaos)
- MATH 371 / ENGR 371: Numerical Methods for Engineers and Scientists
- MATH 463 / BIOINF 463 / BIOPHYS 463: Mathematical Modeling in Biology
- MATH 471: Introduction to Numerical Methods
- PHYSICS 413 / CMPLXSYS 541: Introduction to Nonlinear Dynamics and the Physics of Complexity
- PHYSICS 470 / CMPLXSYS 470: Experiments in Nonlinear Dynamics
- PHYSICS 508 / CMPLXSYS 535: Network Theory
- PHYSICS 580 / CMPLXSYS 520: Empirical Analysis of Nonlinear Systems


## II. Social Science

- CMPLXSYS 250: Social Systems \& Energy
- CMPLXSYS 260 / SOC 260: Tipping Points, Bandwagons and Cascades: From Individual Behavior to Social Dynamics
- EECS 594: Introduction to Adaptive Systems (section titled "Complexity \& Emergence")
- HONORS 493: College Honors Seminar (section titled "Complexity \& Emergence")
- MATH 217: Linear Algebra
- MATH 425 / STATS 425: Introduction to Probability
- NRE 550: Systems Thinking for Sustainable Development
- POLSCI 598: Mathematics for Political Scientists
- POLSCI 793: Methods Seminar (section titled "Advanced Modeling in Political Science")
- PSYCH 447: Current Topics in Cognition and Perception (section titled "Complexity \& Emergence")
- PUBPOL 513: Calculus for Social Scientists
- SOC 260 / CMPLXSYS 260: Tipping Points, Bandwagons and Cascades: From Individual Behavior to Social Dynamics
- STATS 425 / MATH 425: Introduction to Probability
- STRATEGY 566: Systems Thinking for Sustainable Development
III. Biological Science
- BIOINF 463 / MATH 463 / BIOPHYS 463: Mathematical Modeling in Biology
- BIOINF 800: Special Topics (section titled "Computation and Neuroscience")
- BIOPHYS 463 / MATH 463 / BIOINF 463: Mathematical Modeling in Biology
- CMPLXSYS 430 Modeling Infectious Diseases
- CMPLXSYS 510 / MATH 550: Introduction to Adaptive Systems (section titled "Introduction to Dynamics for Biocomplexity")
- EEB 315 / ENVIRON 315: The Ecology and Evolution of Infectious Diseases
- EEB 401: Advanced Topics in Biology (section titled "Interrogating Data with Models")
- EEB 466 / MATH 466: Mathematical Ecology
- ENVIRON 315 / EEB 315: The Ecology and Evolution of Infectious Diseases
- MATH 463 / BIOINF 463 / BIOPHYS 463: Mathematical Modeling in Biology
- MATH 466 / EEB 466: Mathematical Ecology
- MATH 550 / CMPLXSYS 510: Introduction to Adaptive Systems (section titled "Introduction to Dynamics for Biocomplexity")
- MATH 559: Selected Topics in Applied Mathematics (section titled "Computation and Neuroscience")
- MICRBIOL 510: Mathematical Modeling for Infectious Diseases


## IV. Theory \& Methods

- BIOINF 800: Special Topics (section titled "Computation and Neuroscience")
- CMPLXSYS 501: Basic Readings
- CMPLXSYS 520 / PHYSICS 580 / MATH 552: Empirical Analysis of Nonlinear Systems
- CMPLXSYS 530: Computer Modeling of Complex Systems
- CMPLXSYS 531: Basic Computing Skills for Programming Agent Based Models (ABM)
- EECS 594: Introduction to Adaptive Systems (section titled "Complexity \& Emergence")
- HONORS 493: College Honors Seminar (sections titled "Complexity \& Emergence" and "Introduction to Networks")
- MATH 425 / STATS 425: Introduction to Probability
- MATH 462: Mathematical Models
- MATH 552 / CMPLXSYS 520 / PHYSICS 580: Empirical Analysis of Nonlinear Systems
- MATH 559: Selected Topics in Applied Mathematics (section titled "Computation and Neuroscience")
- PHYSICS 580 / CMPLXSYS 520 / MATH 552: Empirical Analysis of Nonlinear Systems
- PSYCH 447: Current Topics in Cognition and Perception (section titled "Complexity \& Emergence")
- STATS 425 / MATH 425: Introduction to Probability

Advising. The CSCS Director and core faculty will serve as advisors to students. The CSCS Key Administrator, Mita Gibson, will be the initial point of contact.

# Comprehensive Studies Program (CSP) 

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The Comprehensive Studies Program (CSP) is an academic unit within the College of Literature, Science, and the Arts that offers a variety of academic support services, including the Summer Bridge Program, academic year course instruction, academic advising and peer advising, tutoring, and freshmen interest groups. CSP works closely with a wide variety of academic departments, offices and programs throughout the university, including offices in the various schools and colleges, the Undergraduate Admissions Office, the Office of Financial Aid, and the Division of Student Affairs.

Admission. CSP's services are available to all undergraduate students. Some students are pre-selected by the Undergraduate Admissions Office, while other students may choose to affiliate with the program following matriculation. Any University of Michigan student may request to affiliate with CSP by completing an application. Over 2,500 students currently participate in CSP programs and services.

Advising and Personal Counseling. Each CSP student has an assigned academic advisor with whom to meet on a regular basis, starting with Orientation and continuing until the student graduates. Together, student and advisor will explore the student's interests, talents, needs, academic goals, and career objectives. They then develop an individualized program to promote general intellectual growth as well as expertise in a particular field of study. Advisors also provide advice on a wide range of practical and personal matters.

Intensive Course Sections. CSP Intensive sections are offered jointly with departments and are regularly available in the Fall and Winter terms for
major introductory courses including Biology, Chemistry, Economics, English, Mathematics, Physics, and Spanish. CSP faculty and staff are dedicated to supporting students who have the determination, dedication, and willingness to work hard toward achieving their academic and career goals. The CSP model emphasizes increased contact between students, instructors, and advisors. CSP intensive course sections are small by design, allowing for more one-to-one interaction between student and instructor. Students enrolled in CSP sections can expect not only more contact with the course instructor, but also more learning opportunities through homework, small group learning sessions, instructor office visits, testtaking practice, and consistent performance feedback from the instructor throughout the term. CSP also provides tutoring opportunities in a variety of subjects for those students who need it, but are not enrolled in CSP courses.

Summer Bridge Program. The Summer Bridge Program is designed to facilitate the transition from high school to college. It is also designed to ensure a high level of participation by the students in the academic life of the university. It is offered during the seven-week Summer Half-Term at the University of Michigan. Program participants reside in University Housing, enroll in credit-bearing courses (with all attendant course obligations), and explore student life at the University of Michigan. Participation in Summer Bridge provides excellent preparation for the fall term. It also provides Summer Bridge students with the opportunity to meet fellow students as well as faculty and advisors. Summer Bridge participants enjoy the camaraderie of a cohesive group while they receive highly individualized academic advice, the benefits of small classes, and the personalized attention of faculty and staff.

Other Services. CSP provides a variety of other services designed to assist students in their development and progress. These services typically include tutoring programs, First-year Interest Groups for career exploration, Peer Advising, and Mentoring opportunities.

## Data Science

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Data Science has emerged as a major field of study, one that sits squarely between Computer Science and Statistics. The collection, management, analysis, and interpretation of such data, with complex structures in the form of text, video, streaming data, are leading to exciting new research opportunities.

Huge amounts of data are being collected in all areas under the umbrella of 'Big Data', made possible by rapid advances in computing, measurement, data storage, and data transfer technologies over the last few decades. This data tsunami is fundamentally changing the way corporations do business and is also leading to new discoveries in science and engineering. Within business and industry, applications range from transactional data captured by companies, data on the Internet and social media, to sensor data captured by smart phones, automobiles, industrial systems, and environmental networks. As we have seen recently, governments are also using automated algorithms to mine large databases for the purposes of security.

Data Science affects research and applications in many domains, including the biological sciences, medical informatics, health care, social sciences and the humanities. It heavily influences economics, business and finance. From the business perspective, data science is an integral part of competitive intelligence, a newly emerging field that encompasses a number of activities.

While these developments have been happening over the last two decades, what is new is the massive increase in scale in three dimensions:

- Volume of data collected
- Variety and heterogeneity in data types
- Velocity of data (such as streaming data in VOIP, video games and others)

The emergence of Big Data has created many new challenges:
i. warehousing, curating, searching, managing, and retrieving data from heterogeneous data bases;
ii. data provenance, privacy and confidentiality;
iii. capturing relevant information from streaming data such as consumer sentiment, trends (e.g., google trends), and so on;
iv. analysis of complex and heterogeneous data structures such as videos, audio, text, speech, etc.;
v. scalable algorithms and visualization tools for massive data;
vi. extracting interesting patterns and relevant information through data mining, graph mining, etc.
vii. understanding and accommodating selection biases in nonrepresentative data (or observational data);
viii. analysis, prediction, and decision making, combining massive data with domain knowledge.

Advising. Faculty advisors are available on both Central and North campuses with a common coordinator across the two programs.

Special Program Policies. Grades of $C$ or better must be achieved in all courses taken to satisfy Data Science requirements.

## Data Science

## Updated 12/14/2015 Fall 2016

May be elected as an interdepartmental major, administered by the department of Statistics and supervised by Data Science Program Committee.

Those completing the major in Data Science may not earn a minor in Computer Science or Statistics.

Data Science is a multidisciplinary undergraduate major, co-located in the College of Engineering (CoE) and the College of Literature, Science, and the Arts (LSA) and is jointly managed by the Division of Computer Science and Engineering (CSE) in the College of Engineering (CoE) and the Department of Statistics in LSA. The students from CoE will receive a BSE in Data Science and the students in LSA will receive a B.S. with a Data Science major.

The program draws on our expertise in Computer Science, Statistics, and Mathematics, complementing them with exposure to application domains to provide a multidisciplinary degree to develop future generations of data scientists. To provide exposure to application domains and to broader issues in data science, the data science program will include technical electives from LSA, Engineering, School of Information, and other U-M schools and colleges.

The undergraduate program in Data Science will provide sufficient background in mathematics (linear algebra and advanced calculus) and build a strong foundation in data science, covering data structures, algorithms, database management, and machine learning (courses in Computer Science) and data collection, data mining, modeling, and inference (Statistics). The Data Science program is designed to produce students with a deeper and broad intellectual understanding of both statistical and computing principles when working with big data, with those principles being applicable to a variety of domains. Students completing this program should be able to:
a. find excellent jobs in industry where substantial experience in data science is desired
b. attend graduate schools to pursue research in data science-related areas.

Minimum Grade Requirement. A grade of C or higher is required for all the required courses including the four required mathematics courses, all the EECS and STATS courses used toward the degree requirements, all the advanced technical electives in Data Science used toward the degree requirements and the capstone experience course.

The grade requirement applies to these courses irrespective of whether they are pre-major or major requirements.

## Prerequisites to the Major (each with minimum grade of C or higher)

- Calculus: MATH 115, 116, and 215 (each competed with a minimum grade of $C$ or higher)
- Linear Algebra: MATH 214 or 217 (competed with a minimum grade of C or higher)
- Introductory Programming: One of EECS 183, ENGR 101, or ENGR 151

Requirements for the Major. A minimum of 42 credits is required (each with minimum grade of $C$ or higher), distributed as follows.
I. Core:
A. Computing and Discrete Mathematics

- EECS 203 Discrete Mathematics (preferred) or
MATH 465 Introduction to Combinatorics
- EECS 280 Programming and Elementary Data Structures.
B. Computing and Statistics
- EECS 281 Data Structures and Algorithms.
- STATS 412 Introduction to Probability and Statistics.
- STATS 413 I [effective Fall 2016]
C. Machine learning and data mining (minimum 4 credits):

EECS 445 Machine Learning
or
STATS 415 Data Mining
D. Data management and applications (minimum 4 credits): EECS 484 Database Management Systems or
EECS 485 Web Database and Information Systems
E. Data Sciences Applied to a Domain (minimum 4 credits): A student must take at least one 400-level or higher course in which data science techniques are applied to a domain area.

- 400+ courses in Statistics and CSE on analytics in healthcare human behavioral analytics, financial analytics
- 400+ level courses in bioinformatics (specify: is this bioinformatics courses in any SUBJECT or courses in BIOINF)
II. Capstone Experience. One course of at least 4 credits approved as satisfying the Data Science Capstone Experience requirement. STATS 485 and the proposed Data Science-oriented CSE courses that also meet the Major Design Experience (MDE) requirements as playing this role.

If a student takes a required course that can also be used to provide capstone experience, the student must either not double count the credits or make up any overlapping credits by taking advanced elective courses.
III. Advanced Technical Electives in Data Science: At least 8 credits of advanced technical electives (at the 300 -level or higher) that build on the foundation provided by the core courses and includes courses in data collection methods, scientific visualization, algorithms, security and privacy, mathematical modeling in biology, biostatistics, and optimization techniques. These courses must be selected from the following list of courses, or other courses by exception selected with advisor approval prior to taking the course.

- BIOINF 463 / BIOPHYS 463 / MATH 463 Mathematical Modeling in Biology
- BIOINF 527 Introduction to Bioinformatics \& Computational Biology
- BIOINF 545 / STATS 545 / BIOSTAT 646 High Throughput Molecular Genomic and Epigenomic Data Analysis
- BIOINF 547 / MATH 547 / STATS 547 Probabilistic Modeling in Bioinformatics
- BIOPHYS 463 / BIOINF 463 / MATH 463 Mathematical Modeling in Biology
- BIOSTAT 449 / STATS 449 Topics in Biostatistics
- BIOSTAT 646 / BIOINF 545 / STATS 545 High Throughput Molecular Genomic and Epigenomic Data Analysis
- EECS 388 Introduction to Computer Security
- EECS 442 Computer Vision
- EECS 467 Autonomous Robotics
- EECS 477 Introduction to Algorithms
- EECS 484 Database Management Systems
- EECS 485 Web Database and Information Systems
- EECS 492 Introduction to Artificial Intelligence
- EECS 498 Special Topics (approved sections only. By default, EECS 498 sections will not count towards the Data Science advanced technical electives)
- EECS 4xx Data Science and Healthcare
- EECS 4xx Data Science and Human Behavior and Emotion Analytics
- EECS 545 Machine Learning
- EECS 549 / SI 650 Information Retrieval
- IOE 310 Introduction to Optimization Methods
- MATH 463 / BIOINF 463 / BIOPHYS 463 Mathematical Modeling in Biology
- MATH 547 / STATS 547 / BIOINF 547 Probabilistic Modeling in Bioinformatics
- MATH 548 / STATS 548 Computations in Probabilistic Modeling in Bioinformatics
- SI 639 Web Archiving
- SI 649 Information Visualization
- SI 650 / EECS 549 Information Retrieval
- STATS 403 Introduction to Quantitative Research Methods
- STATS 406 Introduction to Statistical Computing
- STATS 414 Special Topics in Statistics, section titled " Introduction to Bayesian Data Analysis"
- STATS 426 Introduction to Theoretical Statistics
- STATS 449 / BIOSTAT 449 Topics in Biostatistics
- STATS 470 Introduction to Design of Experiments
- STATS 480 Survey Sampling Techniques
- STATS 508 Statistical Analysis of Financial Data
- STATS 531 Analysis of Time Series
- STATS 545 / BIOINF 545 / BIOSTAT 646 High Throughput Molecular Genomic and Epigenomic Data Analysis
- STATS 547 / MATH 547 / BIOINF 547 Probabilistic Modeling in Bioinformatics
- STATS 548 / MATH 548 Computations in Probabilistic Modeling in Bioinformatics

Dual Majors with Computer Science: For a dual major with Computer Science, the student will need to take an additional 14 credits in pertinent technical subjects, with advisor approval in both Computer Science and Data Science, beyond satisfying the requirements for each of the majors.

Honors Plan. Students are responsible for finding a faculty mentor whose research area aligns with the student's interest and who is willing to supervise their project. Statistics and CSE will designate a Capstone Thesis course that can be used to satisfy both the Data Science Honors requirement in LSA and the Capstone Experience requirement.

- Complete a research project under the direction of a faculty mentor in Computer Science or Statistics (and an optional a co-advisor from any department) by registering for a Capstone Thesis course in EECS or STATS. (The Capstone Thesis course, if completed successfully, will also count toward the Capstone Experience requirement, irrespective of whether the Honors designation is awarded.)
- Write an original thesis report on the research project and make a public presentation of the work. Satisfy the advisor and a second reader that the thesis report and the public presentation are worthy of the Honors designation.
- 3.5 GPA in the major and pre-major courses
- 3.4 overall U-M GPA (at the time of graduation)


# Earth and Environmental Sciences 

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Our innovative and flexible majors provide an interesting path for students to follow on their way to an LSA degree. From our field camp at Camp Davis in Wyoming, to lab work on campus, Michigan students have an opportunity to explore the geological sciences in exciting ways.

The Department of Earth and Environmental Sciences offers:

1. an Earth and Environmental Sciences Major and an Honors Plan
2. a Teacher's Certificate Program, for prospective science teachers who are candidates for a secondary teaching certificate in earth science and general science; and,
3. Minors in Earth Sciences, Environmental Geology, Geology, Oceanography, and Paleontology.

Upper-Level Writing Requirement. The College requires that every student satisfy an upper-level writing requirement before graduation. Students in majors in the department must satisfy this requirement by completion of EARTH 333 or 380 , or both EARTH 431 and 442 , or by a program of writing that is explained in detail on the departmental web page:
www.Isa.umich.edu/earth/undergraduate.
Advising and Advance Approval of Program and Elections. A major in the Department of Earth and Environmental Sciences is developed in consultation with a department advisor. A proposed plan must be approved in its entirety by the appropriate advisor prior to registration for the first term of major. Thereafter, progress through the plan and future elections must be reviewed, and approved in advance, whenever a change is proposed and in any case no less frequently than at the beginning of each new academic year of residence. Certification must also be obtained from an advisor, on an official LSA Major Release Form, immediately prior to submission of the application for the degree.

Information about appointments with department advisors is available on the web at:
www.lsa.umich.edu/earth/undergraduate.
Teaching Certificate. The Department of Earth and Environmental Sciences offers prospective secondary school science teachers an opportunity to earn a bachelor's degree from the College with a major in Earth and Environmental Sciences while satisfying the requirements for a provisional secondary school teaching certificate with a teaching major in earth science or general science. An outline with specific information about the teaching major and minor in earth science, general science, and the other teaching certificate requirements should be obtained from the School of Education Office of Academic Services. Interested students should consult the teaching certificate advisor as early as possible.

## Earth and Environmental Sciences

May be elected as a departmental major
The Earth and Environmental Sciences major trains students to receive a broad foundation in natural and physical sciences related to environmental and Earth sciences. Students are required to learn material from several core areas of the Earth sciences. The program also includes a field requirement that takes students off campus to study and apply their knowledge. Finally, students are encouraged, but not required, to complete a specialization in a subject area of their choosing. Students in this program of study can earn either a Bachelor of Arts or Bachelor of Science degree. A Bachelor of Science degree requires students complete at least 60 credits in science and math courses.

Prerequisites to the Major. Prerequisites to the major provide students with background knowledge in topics related to Earth and environmental science and in core natural science areas. These should be completed as soon as possible:

1. Earth and Environmental Science Requirements. Choose one from each of the following two categories:

- Category I: An introductory geoscience course with a laboratory (EARTH 116, 119\&118, 120, or 201), or an introductory geosciences course without a laboratory (EARTH 119, 284 or 205+206) combined with a laboratory course (EARTH 118 or 207).
- Category II: An introductory course in global change, oceanography, or environmental science (EARTH 171, 222\&223, 201, 202, 284, or 320).

2. MATH 115 (Calculus I)
3. Choose at least $\mathbf{2}$ out of the following 4 options for chemistry, physics, math, and biology courses:

- Option I: CHEM 130 (General Chemistry) with CHEM 125+126 (lab + discussion) highly recommended
- Option II: PHYSICS 140 and 141 (Physics I and lab)
- Option III: BIOLOGY 162, 171, or 172 (Introductory Cell Biology or Ecology)
- Option IV: Choose one from
o MATH 116 (Calculus II),
o MATH 214 or 216 (Differential Equations),
o CHEM 230 (Physical Chemistry) or 210/211 (Organic Chemistry and Lab), or
o PHYSICS 240/241 (Physics II and Lab).
Recommended Prerequisites: Recommended introductory field experience. Students are encouraged in their first year of declaring the major to participate in a departmental international or domestic field trip over spring break or summer.

Students interested in continuing on to graduate school or professional work in the geosciences are encouraged to choose their prerequisites in consultation with a department advisor. See also the other recommendations listed below.

Requirements for the Major. The requirements for the major are:

1. Core Courses: Core courses in the Earth and Environmental Sciences Major are designed to provide students with training in the physical, chemical, and biologic processes relevant to the present form, and evolution of the Earth. Students should choose four courses from the following eight Core Course Options:

- EARTH 305 Earth's Surface and Sediments
- EARTH 310 Geochemistry of the Solid Earth
- EARTH 313 Geobiology
- EARTH 314 Global and Applied Geophysics
- EARTH 315 Earth Materials
- EARTH 325 Environmental Geochemistry
- EARTH 331 Climate and Climate Change
- EARTH 351 Earth Structure

2. Field Experience Requirement. A fundamental aspect of studying the Earth sciences is exposure to hands-on approaches for data collection and problem solving. For this reason, the Earth and Environmental Sciences major requires students to complete a field-based course at Camp Davis, Wyoming, where students learn how to collect and interpret Earth and Environmental science data.
Students must choose one course from EARTH 450 (or prior to Spring 2014, EARTH 341) or 440. Students interested in completing EARTH 440 are strongly recommended to complete EARTH 305, 310, and 351 prior to taking EARTH 440. Students interested in a career in Oceanography may elect to take, with approval from a department advisor, a marine based field course.
3. Geoscience Electives: Nine EARTH credits at the 300 or higher level. Earth and Environmental Sciences majors are required to take these additional EARTH credits at the 300 or higher level to develop additional expertise in a specialization or area of their choosing. Students may wish to consider a specialization in an area listed in the core courses, or create their own specialization in consultation with a department advisor.

Remaining core courses listed above may be elected as well as other department course offerings. Students interested in graduate school and/or professional employment in the geosciences are encouraged to take as many 400 -level courses as possible.

A maximum of one credit of research or independent study (EARTH $299,489,490,494,498,499$ ) can be used for these electives.

Sample specializations: Students who choose the Earth and Environmental Sciences major are encouraged to build a specialization that suits their own interests by taking additional upper-level courses in the Earth and Environmental Sciences department. They may elect to use additional relevant courses from other departments as well. Students should build their specialization in close consultation with their department advisor.

The following includes titles of a few example specializations that students may consider pursuing. Recommended courses associated with each of these specializations are available on the department website. These are only examples, and other specializations may be considered in consultation with a department advisor:

- Geology
- Environmental Geoscience
- Energy and Mineral Resources
- Geochemistry
- Geophysics
- Oceanography
- Paleontology and Geobiology

Other recommendations: Students interested in graduate school or a career in geological and environmental sciences, or oceanography, are strongly encouraged to plan their curriculum in close consultation with a Earth and Environmental Sciences department advisor as soon as possible. Example curricula are given below.

Recommended courses for students interested in graduate study or professional employment in Geological Sciences include:

- MATH 116 (Calculus II), MATH 214 or 216 (Differential equations).
- CHEM 230 (Physical Chemistry) or CHEM 210 and 211 (Organic Chemistry)
- PHYSICS 240 and 241 (Physics II and Lab)
- EARTH $305,310,313,315,351,418,420,422,440$
- Completion of a senior or Honors thesis after at least two terms of research with faculty in the department.

Recommended courses for students interested in graduate study or professional employment in Environmental Geology include:

- MATH 116 (Calculus II), MATH 214 or 216 (Differential equations).
- CHEM 230 (Physical Chemistry) or CHEM 210 and 211 (Organic Chemistry)
- PHYSICS 240 and 241 (Physics II and Lab) or BIOLOGY 162, 171, or 172.
- EARTH 305, 315, 325, 380, 420, 442, 450 (or prior to Spring 2014, EARTH 341), 465, 477.
- Completion of a senior or Honors thesis after at least two terms of research with faculty in the department.

Recommended courses for students interested in graduate study or professional employment in Oceanography include:

- MATH 116 (Calculus II), and one of MATH 214, 215, or 216 (Differential equations)
- STATS 250 (or 350)
- CHEM 230 (Physical Chemistry) or CHEM 210 and 211 (Organic Chemistry)
- PHYSICS 240 and 241 (Physics II and Lab)
- EARTH 222 and 223, 305, 310, 320, 321, 325 or 422, 409, 420, 449, 452
- Completion of a senior or Honors thesis after at least two terms of research with faculty in the department.


## Honors Plan

The Honors plan consists of a series of special academic opportunities supplementary to the regular Major listed above. The Honors plan is tailored to fit the needs and interests of individual students. EARTH 490 is elected for one credit during two of the four terms of the junior and senior years for:

1. reading and discussion of the professional literature;
2. library research and reporting on a special research problem;
3. research as an assistant to a faculty member or as part of a graduate seminar; or
4. individual research and reporting on a problem or graduate seminar.

A thesis is required to complete the program. The Honors plan offers wellqualified students an opportunity to increase the breadth and depth of their undergraduate experience. To be eligible for the Honors plan, students must have at least: (1) a 3.4 grade point average in Earth and Environmental Sciences courses elected in the department; and (2) a cumulative grade point average of at least 3.4 at the time of acceptance. Students admitted to the Honors plan must complete the requirements for their principal major.

Ideally, the selection of candidates for Honors plan is made at the beginning of the junior year, but qualified students may be admitted to the program as late as the end of the junior year. Interested students should contact the departmental office for referral to the Honors advisor, 2534 C.C. Little Building, (734) 764-1435.

## Earth and Environmental Sciences Minors

Students wishing to pursue a minor in the Department of Earth and Environmental Sciences must develop a specific plan for its completion in consultation with the department's designated advisor. Appointments are scheduled online
www.lsa.umich.edu/earth/undergraduate.

## Earth Sciences

The Earth Sciences minor is not open to students with any major or any other minor in the department of Earth and Environmental Sciences.

Earth Sciences minor is designed to give students a broad introduction to geology, oceanography and related sciences. It allows a wide selection of courses to suit both general and specific interests. The Earth Sciences minor would be particularly suitable for non-science majors, such as prelaw, business, economics, history, and English.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following three categories as stated:

1. One introductory Geology course must be taken from one of the following two groups:
Group 1. Courses with laboratory: EARTH 116, 118\&119, 120, 201, 222\&223.
Group 2. Courses without laboratory (EARTH 119, 125, 135, 175, 205+206, 284)
2. One General Interest course. Up to four additional credits may be elected from 200-level and up courses in Earth and Environmental Sciences, including 200-level courses listed in Category 1 (above).
3. Upper-level Electives: The remainder of the credits for the minor must be elected from 300- and 400-level courses in Earth and Environmental Sciences.

## Environmental Geology

Not open to students electing the minor in Earth Sciences.

The Environmental Geology minor is designed to give students a broad introduction to processes shaping the Earth's surface, its physical and biochemical environment, and potential response to anthropogenic influences. Because society and the Earth's surface environment are intimately linked, students with interests in pre-law or with majors such as business, economics, history, and English may find the minor in Environmental Geology an attractive complement to their training. As well, students majoring in other areas of the Natural Sciences may find the minor in Environmental Geology a way to diversify their background and apply fundamental scientific principles in an interdisciplinary way. Note that by LSA rules, only one course may be elected in common to a minor and a major.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following three categories as stated:

1. One introductory Geology course must be taken from one of the following two groups:
Group 1. Courses with laboratory: EARTH 116, 118\&119, 120, 201.
Group 2. Courses without laboratory (EARTH 119, 135, 205\&206).
2. Core courses: EARTH 284 and 380 are required.
3. Elective courses: EARTH 325, 442, 444, 450 (or 341 prior to Spring 2014), 477, 478, or permission of advisor.

## Geology

The Geology minor is designed to give students a specialization in geology, which includes the physics and chemistry of the solid Earth. The minor is suitable for students who wish to add a specialization in geology to their natural science degree.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following three categories as stated:

1. An introductory geology course: EARTH 116, 119, 120, or 205+206. Students who elect EARTH 119, 120, or 205+206 are strongly encouraged to also enroll in EARTH 118.
2. Core course. Choose one or more of: EARTH 305, 310, 314, 315, 351.
3. Electives: $311,380,417,418 / 419,420,422,436$ ( 2 credits max), 440, 442, 449, 467, 483, 494 (one credit max).

## Oceanography

Not open to students electing the minor in Earth Sciences.
The minor in Oceanography is designed to provide students with broad introductions to oceanography, to the geological processes active on the seafloor and the seashore, and to the geological evolution of the ocean basins and their sediment records of past climates. Note that by LSA rules, only one course may be elected in common to a minor and a major.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following three categories as stated:

1. One introductory geoscience course must be taken from one of the following two groups:
Group 1. Courses with laboratory: EARTH 116, 118\&119, 120, 201.
Group 2. Courses without laboratory (EARTH 119, 205\&206, 284).
2. Core courses: EARTH 222, 223.
3. Elective courses (5-7 credits) to be elected from the following:

- CHEM 467
- EARTH 305, 320, 321, 333, 409, 420, 421, 422, 446, 449, 452, 465, 467, 478, 479;
- EEB 380, 401 (section titled "Field Methods in Great Lakes Oceanography) - at the U-M Biological Station
- AOSS 320, 321, 410, 420, 467
- ENSCEN 420, 455, 467
- NRE 501 (section titled "Field Methods in Great Lakes Oceanography) - at the U-M Biological Station
- NAVARCH 420, 455
- or permission of advisor


## Paleontology

## Not open to students electing the minor in Earth Sciences.

The minor in Paleontology is designed for students interested in the history of life on Earth. Entry and core courses will provide students with insight into the major features of the fossil record, the methods used in historical sciences, and the theoretical issues dealt with by paleontologists. The advanced courses are meant to satisfy more specific interests.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following three categories as stated:

1. Entry courses ( $3-6$ credits required). The "entry point" into the minor may include paleontology-oriented courses (EARTH 103, 106, 125, 150) or geology-related courses (EARTH 116, 118\&119, 120, 149, 201, 205, 206, 207).
2. Core courses (4 credits required). EARTH 418 and 419 are required.
3. Elective courses (remaining 5-8 credits). Students may choose from:

- EARTH 313, 431, 437, 438, 439, 445, 498 (for 1-3, but no more than 3 credits), 506, 510, 511, 513, 526 (no more than 1 credit)
- ENVIRON 431
- EEB 390, 445
- or permission of advisor


# Ecology and Evolutionary Biology (EEB) 

2019 E.H. Kraus Natural Science Building
830 North University Avenue
(734) 764-2446 (phone)
(734) 647-0884 (fax)
www.Isa.umich.edu/eeb/
The Department of Ecology and Evolutionary Biology embraces education and research on virtually all aspects of biodiversity, including the origins and history of species ranging from bacteria to humans, the processes by which this diversity has evolved, and the ecological context in which this evolution takes place. These basic sciences underlie some of the most important applied sciences in the world today, such as global climate change, sustainable agriculture, the emergence and spread of infectious diseases, invasive and exotic species, conservation biology, natural resource management, and evolution of pesticide and antibiotic resistance.

Ecologists and evolutionary biologists seek to understand the origin and complex interactions of the earth's biodiversity and ecosystems. Our collective focus spans numerous levels of biological organization over multiple timescales; including genes, individuals, kin groups, populations, species, communities, and ecosystems. Studies in ecology and evolution strive to synthesize how these levels of organization are related to one another and what processes govern their interactions. Although the methods, background knowledge, and social context for such investigations have changed radically in recent decades, the fundamental questions about life remain, and their relevance to humans has increased. How did we get here? How does nature work? How will our role in nature change in the future?

Requirements for the Major. The department administers the major and minor in Ecology and Evolutionary Biology. Students interested in majors in Biology, General Biology, or Plant Biology or a minor in Biology or Plant Biology should refer to information listed under the Program in Biology.

Advising. Students are advised by a combination of Undergraduate Biology Office staff and faculty department advisors. Advising topics include investigating majors, declaring a major, course planning, research and Honors, major releases, graduate school and career advice. Students who are interested in the EEB major or minor should consult a general advisor during the freshman year, and are strongly encouraged to meet with a department advisor early in their academic career, but no later than the second term of their sophomore year. It is not necessary to complete every prerequisite before declaring a major. To make an appointment, go to the Program in Biology website at www.Isa.umich.edu/biology/.

Field of Major GPA Calculation. For purposes of calculating grade point average, the term "field of the major" means the following:

1. All BIOLOGY, EEB, MCDB, and Biological Station courses, including cross-listed ones, at the 200-level and above.
2. All required cognate courses (if any).
3. All mandatory prerequisites.

Introductory Biology Credit Limitation: The maximum amount of credit that can be earned in introductory biology courses is 17 credits. Students interested in majoring in Ecology and Evolutionary Biology or Plant Biology must complete BIOLOGY 171, 172/174 and 173, or BIOLOGY 195 and 173, or equivalent.

## Ecology and Evolutionary Biology

May be elected as a departmental major

## Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)

Exclusions: Students who elect a major in Ecology and Evolutionary Biology may not elect the following majors: Biology, General Biology; Microbiology; Plant Biology; or Biochemistry. They may also not elect a minor in Biology; Ecology and Evolutionary Biology; Plant Biology; Chemistry; or Biochemistry.

The Ecology and Evolutionary Biology major will train biologists interested in the origins and complex interactions of the Earth's biodiversity and ecosystems with both the fundamental knowledge in these areas and the basic skills of scientific inquiry. The program spans numerous levels of biological organization over multiple timescales, and includes studies of genes and genomes, organ systems, individual organisms, populations, species, communities, and ecosystems. Students learn to synthesize how these levels of organization are related to one another and what processes govern their interactions. The major in EEB will prepare students for a variety of career paths including graduate study in biology, public health and medical, dental, and veterinary health professions, conservation and natural resource management, teaching at the K-12 level, positions in the local, state and federal governments, non-profit / non-governmental organizations, and private sector opportunities such as environmental consulting agencies. The minor embraces similar principles but to lesser depth for students who wish to supplement a major in another area with additional biological expertise.

Advising. To make an appointment, go to the Program in Biology website at www.lsa.umich.edu/biology/.

## Prerequisites to the Major.

- BIOLOGY 171, 172/174 and 173; or

BIOLOGY 195 and 173; or
BIOLOGY 162 or 163;

- PHYSICS 125/127 and 126/128; or

PHYSICS 135/136 and 235/236; or
PHYSICS 140/141 and 240/241.

- CHEM 210/211 and 215/216;
- Quantitative Analysis 1: MATH 115, 120, 175, 185, or 295
- Quantitative Analysis 2: One of
o BIOLOGY 202
o MATH 116, 121, 156 (retroactive to Fall 2008), 255, 176, 186, or 296
o STATS 250; 400-level or above
o BIOPHYS 290 / PHYSICS 290
o EECS 203 or 280
o EARTH 468
o Any other course with a MATH 115 prerequisite chosen in consultation with a major advisor
[Note: any course used to meet this requirement cannot also be used as a major elective, i.e., a course cannot "double count".]

Under exceptional circumstances, students may petition the Associate Chair of Curriculum to substitute other courses in chemistry, physics, mathematics, and statistics for a prerequisite.

Requirements for the Major. A minimum of 30 credits, including:

1. Core courses
a. Ecology: BIOLOGY 281 \& EEB 372* (or BIOLOGY 282); or EEB 381* (elected at UMBS)
b. Genetics: BIOLOGY 305
c. Evolution: EEB 390* or 391 or 392* (effective Winter 2016, retroactive to Fall 2008)
d. Quantitative Analysis Option or Biochemistry Option (choose one course):
i. STATS 401, 403, 412, 425;

EECS 281, 376;
EEB 408, 430, 490
ii. MCDB 310 or BIOLCHEM 415 or CHEM 351
iii. A second course from the Quantitative Analysis 2 options above [see prereqs]; min of 3 credits, courses cannot be double counted.
e. Capstone Seminar: EEB 410.

* EEB 381 or EEB 390 taken at UMBS satisfies both the residential field course requirement and the individual course requirements.

2. Upper-Level Electives ( 2 courses, minimum 6 credits):
a. EEB 300-level or above
and
b. EEB or MCDB 300-level or above

Exclusions: EEB/MCDB [300, 301, 302, 397, 399, 400, 499, 800]; or MCDB 412
3. EEB Course Areas. Courses used here may overlap with courses in the areas below and elsewhere (i.e., one course may satisfy multiple requirements).
a. Biodiversity: At least one course must have a biodiversity focus.

- BIOLOGY 207* (4) Introductory Microbiology
- BIOLOGY 230* (4) Introduction to Plant Biology
- BIOLOGY 252* (4) Vertebrate Evolution and Diversity
- BIOLOGY 255* (5) Plant Diversity (Sp)
- BIOLOGY 256 (4) Animals Functioning in Environments
- BIOLOGY 288* (4) Animal Diversity
- EEB 330* (5) Biology of Birds (Su-UMBS)
- EEB 341*(4) Parasitology
- EEB 420 (3) Plant Evolution
- EEB 431* (5) Biology of Animal Parasites (Su-UMBS)
- EEB 433* (4) Ornithology
- EEB 436 (4) Woody Plants I: Biology and Identification
- EEB 440 (3) Biology of Fishes
- EEB 442* (4-5) Biology of Insects (F-AA / Sp- UMBS)
- EEB 443* Biology of Insects (UMBS) (effective Winter 2016, retroactive to Fall 2008)
- EEB 450* (5) Biology of Amphibians and Reptiles
- EEB 451* (4) Biology of Mammals
- EEB 453* (5) Field Mammalogy (Su-UMBS)
- EEB 457* (5) Algae of Freshwater Ecosystems
*also satisfies lab req
b. Research* or Residential Field Experience:
i. EEB 300 (3) or 400 (3), or,
ii. Any upper division UMBS course or advisor-approved residential field experience

A maximum of three credits of independent research (EEB / MCDB 300 / 400), taken in one term, may be used to satisfy the Residential Field Course or Independent Research requirement.

See more information on Program in Biology undergraduate research: www.lsa.umich.edu/biology/studentresearch
4. Additional Courses (Electives and Cognates). Additional courses at the 200-level or above as needed to bring the major total to 30 credits. This may include up to two approved cognate courses (see list below)..

Three additional credits of MCDB 300 or EEB 300 or EEB 400 or MCDB 400 (taken in one term), may be applied under Additional Courses for a maximum of six independent research credits.

## Excluded:

- Prerequisites and introductory science courses
- BIOLOGY 241
- EEB 301
- EEB 302
- EEB 800
- MCDB 301
- MCDB 302
- MCDB 412
- MCDB 800


## COGNATE OPTIONS:

## Anthropology

ANTHRBIO 365 Human Evolution
ANTHRBIO 368 Primate Social Behavior I

## Chemistry

Any course number CHEM 230 or above.

## Complex Systems

CMPLXSYS 501 Introduction to Complex Systems
CMPLXSYS 530 Computer Modeling of Complex Systems

## Earth and Environmental Sciences

EARTH 320 Earth Systems Evolution
EARTH 341 Environmental Science in the Rockies
EARTH 418 Paleontology
EARTH 436 Field Studies in Stratigraphy, Paleontology, and Sedimentology
EARTH 437 Evolution of Vertebrates
EARTH 438 Evolution of the Primates

## Environment

ENVIRON 310 Toxicology: The Study of Environmental Chemicals and Disease
ENVIRON 311 Lakes, Rivers and Wetlands (Also taught at UMBS)
ENVIRON 317 Conservation of Biological Diversity
ENVIRON 341 Environmental Science in the Rockies
ENVIRON 353 Tropical Conservation and Resource Management
ENVIRON 411 Fluvial Ecosystems
ENVIRON 416 Field Skills in Wildlife Behavior
ENVIRON 418 Biology and Management of Insects
ENVIRON 419 Agricultural/Forest Pest Management
ENVIRON 441 Remote Sensing of Environment
ENVIRON 457 Plant Physiological Ecology

## Mathematics

Courses numbered 200 or above.

## Molecular Cell and Developmental Biology

All MCDB courses.

## Physics

Courses approved in advance by an advisor

## Psychology

PSYCH 338 Primate Social Behavior I
PSYCH 438 Hormones and Behavior
PSYCH 530 Advanced Topics in Evolutionary Comparative Psychology

## Statistics

STATS 250 Introduction to Statistics and Data Analysis
STATS 400 Applied Statistical Methods

## College of Engineering

AOSS 304 The Atmospheric and Oceanic Environment
AOSS 320 Earth Systems Evolution
BIOMEDE 231 Introduction to Biomechanics
ENSCEN 304 The Atmospheric and Oceanic Environment

## Medical School

BIOLCHEM 415
HUMGEN 541 Gene Structure and Regulation
School of Public Health
EPID 543 Virus Diseases
EPID 560 Mechanisms of Bacterial Pathogenesis

## Honors Plan

The department conducts an Honors program to train students to conduct independent research in Ecology \& Evolutionary Biology. In addition to completing all the requirements for the EEB major, an Honors plan requires a GPA in the major of at least 3.4, and the completion of a significant piece of independent research that is reported in an Honors thesis and presented in a public forum. It is recommended that students discuss Honors with a department advisor early in their undergraduate career, and to meet with a department advisor to declare the Honors plan as soon as possible.

## Minor in Ecology and Evolutionary Biology

Updated 11/14/2015 - effective Winter 2016

The minor trains biologists interested in the origins and complex interactions of the Earth's biodiversity and ecosystems with both the fundamental knowledge in these areas and the basic skills of scientific inquiry. The minor covers the material of the major to a lesser depth for students who wish to supplement a major in another area with additional biological expertise.

Exclusions: Students who elect a minor in Ecology and Evolutionary Biology may not elect the following majors: Biology, General Biology, Plant Biology, Ecology and Evolutionary Biology, Microbiology, or Biochemistry. They may also not elect a minor in Biology, Program in the Environment, Plant Biology, or Global Change.

The minor in Ecology and Evolutionary Biology is not recommended for students interested in graduate work in the biological sciences.

Prerequisites to the Minor. BIOLOGY 171, 172/174 and 173; or BIOLOGY 195 and 173; or BIOLOGY 162 or 163.

Minor Program. 15 credits at the 200-level and above (Students who took BIOLOGY 162 or 163, or students with AP credit for BIOLOGY 162 must take 18 credits), distributed as follows:

1. Core courses: Two courses chosen from the following three areas:
a. Ecology: BIOLOGY 281 or EEB 381 (Biological Station)
b. Genetics: BIOLOGY 305
c. Evolution: EEB 390 (on campus or at the Biological Station); or EEB 392* (effective Winter 2016, retroactive to Fall 2008)
2. Elective courses in EEB to bring minor credits to at least 15 ( 18 for students who took BIOLOGY 162 or 163, or students with AP credit for BIOLOGY 162).

- At least one course must have a biodiversity focus (see list of approved courses, above)
- At least one course must include a lab. EEB 300 or 400 , elected for three credits, may be used to satisfy this requirement. A maximum of three credits in undergraduate research credits can be applied to the minor in EEB. Three credits of independent research must be completed in one term to satisfy a laboratory requirement.
- Attendance at a residential field station is encouraged
- Excluded: EEB 800, MCDB 800, BIOLOGY 241

Multiple requirements may be satisfied by one course.

## Economics

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611 Tappan Street
(734) 764-2355 (phone)
(734) 764-2769 (fax)
www.lsa.umich.edu/econ
e-mail: econundergradoffice@umich.edu
As a social science, economics is concerned with people in their roles as economic decision makers. Economists study how business and personal decisions are made under conditions of uncertainty and incomplete information, and they provide insight into problems involving both shortand long-term planning, such as investment and savings decisions.

Economic problems are central to modern society; they center around the utilization of limited resources to provide goods and services for society. Consequently, a broad understanding of the modern world requires some knowledge of economic systems. An individual's intelligent understanding of and participation in the solution of problems which face society is aided by an understanding of the point of view and techniques of analysis which have been developed by economists.

A major in Economics leads to a more detailed understanding of the modern economic world and provides a useful background for students seeking careers in law, business, government, journalism, and teaching. A strong grounding in both theoretical and applied aspects of economics allows students to use their knowledge to understand economic behavior and provides a basis for evaluating economic policy.

The introductory courses (ECON 101 and 102) offered by the department are designed to provide basic knowledge as well as to serve as a foundation for other courses in economics for students who wish to pursue the subject at an intermediate or advanced level.

Virtually all empirical work in economics relies on statistical and econometric analysis. No one can understand or evaluate empirical economics, let alone perform it, without solid grounding in the tools of econometrics. Our curriculum requires a two-course sequence in statistics and econometrics. Student may choose from three different sequences that differ in emphasis (practical, applications, concepts, or foundations) and in mathematical preparation (Calc I, Calc II, or Calc II + linear algebra).

Students who wish to attain professional competence as economists in preparation for careers in research or in college or university teaching normally plan on graduate work in economics.

## Special Departmental Policy: AP Credits.

The Department of Economics does not give AP credit for ECON 101 or ECON 102. Whenever the department lists ECON 101 or ECON 102 as a prerequisite, the department does not accept AP credit as a substitute.

Students achieving a 4 or 5 on the AP Microeconomics exam receive 2 credits for ECON 101X, and students achieving a 4 or 5 on the AP Macroeconomics exam receive 2 credits for ECON 102X. As prerequisites for other courses in Economics and as prerequisites for the Economics major and minor, ECON 101X does not substitute for ECON 101, and ECON 102X does not substitute for ECON 102. Students receiving 2 credits for ECON 101X may take ECON 101 and receive 4 credits for ECON 101. Students who receive 2 credits for ECON 102X may take ECON 102 and receive 4 credits for ECON 102. Thus, anyone who intends to concentrate in economics, to minor in economics, or to take electives in economics at the 300 or 400 level should enroll in ECON 101 and/or ECON 102.

Students intending to apply to the BBA program should consult carefully the requirements of the Business School. As of this writing, the Business School does not accept ECON 101X as a substitute for ECON 101, and it does not accept ECON 102X as a substitute for ECON 102.

Advanced placement credits in MATH 121 may be substituted for MATH 115. Credits in MATH 120 alone do not satisfy the mathematics prerequisite for an economics major or minor. Students with credit for MATH 120 may satisfy the mathematics prerequisite for the Economics
major by completing, with a grade of at least C, MATH 115, MATH 116, or one of the Honors alternatives to these courses.

Economics Undergraduate Office. The undergraduate office is located at 243 Lorch Hall, (734) 763-9242. The Student Services Assistant for the economics undergraduate program is available to answer questions about requirements for the major, course offerings, wait-list procedures, career/job information, economics networking program, and other matters concerning the undergraduate program.
Advising. Students interested in a major or minor in Economics should consult an economics department advisor. Appointments are scheduled online at:
www.Isa.umich.edu/econ/undergraduatestudy/departmentaladvising
Students are urged to consult with a department advisor each term before selecting courses for the following term.

## Economics

May be elected as a departmental major

## Prerequisites to the Major

ECON 101 and 102 and MATH 115, each completed with a grade of C or better. MATH 120 may not be substituted for MATH 115. MATH 116, $121,156,185,186,215,216,255,256,285,286,295$, or 296 may be substituted for MATH 115.

To declare an Economics major, schedule an appointment with an Economics Department advisor. Students must complete the prerequisites to the major before declaring and must have a GPA of 2.0 or better in the major.

Students interested in advanced economics are strongly encouraged to continue the study of mathematics beyond MATH 115. Note that MATH 116 (Calculus II) is a prerequisite for ECON 451 and that MATH 215 (Calculus III) and MATH 217 (Linear Algebra) are prerequisites for ECON 453.

## Requirements for the Major

An Economics major must include a minimum of 29 credits, distributed as follows:

## 1. Core Economic Theory:

a. ECON 401, completed with a grade of C - or better.
b. ECON 402, completed with a grade of C-or better. ECON 401 should be elected before ECON 402.

## 2. Core Statistics and Econometrics

a. STATS 250 (Basic), or STATS 426 or ECON 451 (Intermediate), or ECON 453 (Advanced), completed with a grade of C - or better.
b. ECON 251 (Basic), or ECON 452 (Intermediate), or ECON 454 (Advanced); completed with a grade of C - or better.

Students interested in economic research and/or in applying to doctoral programs in economics or finance are encouraged to elect the advanced sequence, ECON 453 and 454. These courses develop a deep, foundational understanding of the empirical methods used in economic research. This sequence will be especially useful to students intending to apply to doctoral programs in economics or finance.
3. Electives: 15 additional credits in upper-level ( 300 and 400 level) ECON courses, including at least nine credits in courses with ECON 401 or ECON 402 as a prerequisite.

ECON 401 and 402, and ECON 250, 251, 451, 452, 453, and 454 do not count toward the elective requirement for the major.

All students intending to major in Economics should endeavor to complete the core requirements in economic theory and in statistics and econometrics before the second term of the junior year.

## Ann Arbor campus requirement

Any courses for the major to be taken elsewhere than the Ann Arbor campus of the University should be approved in advance by an economics department advisor.

At least 12 credits in the major, including ECON 401, ECON 402, and at least three of the credits in upper-level economics electives in courses with ECON 401 or ECON 402 as a prerequisite, must be taken at the Ann Arbor campus (excluding STDABRD and transfer courses).

## Honors Plan.

## 2/18/16 Effective Fall 2016

Qualified students are encouraged to consider an Honors plan in Economics. The standards for admission are a cumulative grade point average of at least 3.5 and evidence of outstanding ability in economics. Application is made and admission is granted to the Honors plan during the first term of the junior year.

Honors majors are required to complete the requirements for a regular major in Economics.

An Honors plan must include

1. One of: ECON 451 or ECON 453 or STATS 426
2. One of: ECON 452 or 454 .

In addition, Honors majors must complete a senior Honors thesis. The senior Honors thesis includes original work completed by the student under the direction of a faculty advisor and the Director of the Honors Program in Economics. Honors majors are given priority in election of one section of ECON 495 (Seminar in Economics).

## Minor in Economics

A minor in Economics is not open to students with a major in the Department of Economics

A minor in economics provides a useful background for students seeking careers in law, business, government, journalism, and teaching. Students majoring in one of the other social sciences are often interested in economic issues and the study of economics provides them with tools useful for analyzing the economic aspects of issues in these other disciplines. The analytic skills and knowledge of economic institutions
developed in the pursuit of the minor in economics will be useful to students in all disciplines who will be contributing to business and public policy decisions. Students completing the minor in economics develop analytical skills through exploring the paradigms of microeconomics and macroeconomics at the intermediate level and increase their understanding of economics institutions and of application of economic principles.

Students wishing to pursue a minor in Economics must develop a specific plan for its completion in consultation with one of the department's designated advisors.

Schedule an appointment with an economics minor advisor to declare an economics minor. Students must complete the prerequisites to the minor before declaring and must have a GPA of at least 2.0 in the minor.

Prerequisites to the Minor. ECON 101 and 102 and MATH 115, each completed with a grade of at least C. One of the Honors alternatives to MATH 115 may be substituted for MATH 115. Advanced placement credits in MATH 121 may be substituted for MATH 115. Credits in MATH 120 alone do not satisfy the mathematics prerequisite for an economics major or minor. Students with this credit may complete the economics mathematics prerequisite by completing, with a grade of at least C, MATH 115, MATH 116 , or one of the Honors alternatives to these courses.

Requirements for the Minor. 17 credits in ECON at the 300-level and above, distributed as follows:

1. ECON 401 (Intermediate Microeconomics) and ECON 402 (Intermediate Macroeconomics), each completed with a grade of at least C-
2. Nine additional credits in upper level ( 300 and 400 level) ECON courses, including at least three credits in courses with ECON 401 or ECON 402 as a prerequisite.

One (but only one) of ECON 452 and 454 may be counted toward this requirement. Neither ECON 451 nor 453 may be counted toward this requirement.

Ann Arbor campus requirement: Any courses to be taken for the minor outside the Ann Arbor campus of the University should be approved in advance by an economics department advisor. At least 11 credits in the minor plan, including ECON 401, ECON 402, and the 3 credits in upper-level economics elective with the ECON 401 or ECON 402 prerequisite, must be taken at the Ann Arbor campus (excluding STDABRD and transfer courses). ECON 401 should be taken before ECON 402.

# Electrical Engineering and Computer Science 

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e-mail: ugadmin@eecs.umich.edu

The Department of Electrical Engineering and Computer Science (EECS) offers undergraduate programs for LSA students. LSA students may choose the major in Computer Science, the minor in Computer Science, or the
minor in Electrical Engineering. EECS is also a participating unit in the interdepartmental Informatics major listed in under Informatics.

## Computer Science \& Engineering Division

Computer science is an integral part of our lives, shaping virtually everything from the objects around us to the ways in which we communicate, travel, work, and play. And the computer revolution has just begun - computer science is now a key enabler for discovery and innovation in most other fields of endeavor, making it an incredibly relevant course of study. The potential for creativity and impact in areas such as medicine, health care, entertainment, the performing arts, education, transportation, security, and the environment is enormous.

The computer science program at Michigan is one of the oldest and most respected. It is also one of the most innovative, with new courses continually under development, many with an interdisciplinary, real-world focus. Recently introduced undergraduate courses have included opportunities for students to develop new musical interfaces and compositions on iPhones, to create in-car social network applications for an emerging Ford vehicle communications platform, and to develop and showcase exciting, intelligent video games.

Michigan computer science students develop a solid knowledge of programming languages, data structures, and computer organization from a faculty that is as acclaimed for excellence in teaching and mentoring as it is renowned for cutting edge research.

## Questions?

Students interested in Computer Science or who have questions about the major or minor should contact:

Undergraduate Advising Office
Computer Science \& Engineering Division
2808 Bob and Betty Beyster Building
University of Michigan
Ann Arbor, MI 48109-2122
Telephone: (734) 763-6563
www.cs.umich.edu
e-mail: cslsaadvisor@umich.edu
Prior Programming Experience. EECS 280 assumes prior programming experience using decision constructs, iteration, functions, basic I/O, and simple arrays in C/C++. Many students interested in Computer Science or Computer Engineering will have had such experience in high school coursework. Engineering students who do not place out of ENGR 101 should take ENGR 101 first, and LSA students who lack prior programming experience should take EECS 183 before taking EECS 280.

EECS Department Grade Policy. Grades of $C$ or better must be achieved in all courses taken to satisfy Computer Science requirements.

## Computer Science

May be elected as a departmental major
The program not only provides a solid foundation in computer software, hardware, and theory, but also gives the student ample opportunity to take advanced electives in areas of computer science such as databases,
operating systems, security, networks, artificial intelligence, and graphics, or in emerging interdisciplinary areas such as cloud computing, smart phone or web apps, and computer game design.

## Pre-Major Requirements.

To declare in the LSA Computer Science (CS) major a student must first complete 4 pre-major courses. These are: EECS 203, EECS 280, MATH 115, MATH 116. Performance in these courses is indicative of student aptitude for the Computer Science program, and students who do not perform well are encouraged to meet with a CS-LSA advisor. Students must achieve a 2.5 GPA over the 4 pre-major courses and have at least a C in each course. Students may repeat a pre-major course once, for a maximum of two attempts at each course, and only the final grade for the course will be used to compute the pre-major GPA. Only courses with grades of C+ or below can be repeated for this purpose.

## Requirements for the Major.

1. Core Courses:
a. Computer Science: EECS 281, 370, 376.
b. Probability and Statistics: STATS 250 or 412 or 426, or STATS 265/IOE 265.
2. Capstone Course (which may not be counted as CS Upper Level Technical Elective, below): Senior Thesis (EECS 443) or Major Design Experience Course (check with the department for current list of approved MDE courses).
3. Upper-Level CS Technical Electives. 16 credits. Check with the department for an up-to-date list of approved Upper Level CS elective courses. The department can suggest groupings of electives that pursue different tracks such as software development, robotics, or bioinformatics, among various others.
4. At least 27 credits must be upper-level

Comprehensive and up-to-date information about the computer science program can be found on the web at:
www.eecs.umich.edu/eecs/undergraduate/ugcs/computer_science.html
Honors Plan. Students wishing to complete an Honors plan in Computer Science must have earned a 3.2 or higher GPA in the four required premajor courses (MATH 115, 116, EECS 203 and 280). Student must also have earned an overall GPA of 3.4 or higher (as required by LSA for Honors), and must have a final major GPA in Computer Science of 3.5 or higher. Students must complete the Senior Thesis course (EECS 443), write a thesis, and make an oral presentation of the thesis results, with the faculty advisor and a second faculty member determining whether the thesis is of a quality that qualifies the students for Honors.

## Computer Science Minor

A minor in Computer Science is not open to students with a major or minor in the Department of Electrical Engineering and Computer Science.

January 27, 2016 Winter 2016

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The minor in Computer Science is intended to provide students with a foundational grounding in the discipline of software construction, along with an in-depth experience in at least one advanced area.

Students wishing to pursue a minor in Computer Science should meet with the program advisor for the LSA Computer Science major. Information about scheduling advising appointments is available from the EECS Undergraduate Advising Office, 2808 Beyster Building.

Prerequisites to the Minor: MATH 115, and prior programming experience: EECS 183, ENGR 101, or their equivalent.

You must satisfy the prerequisites before declaring. The best time to declare is during or after the academic term you take your first core course (EECS 203 or 280). Note that you will need to declare before you will be allowed to enroll in any of the CS electives.

Requirements for the Minor: 16 credits of courses as follows:

1. Three Core Courses ( 4 credits each):

- EECS 203: Discrete Mathematics
- EECS 280: Programming and Introductory Data Structures
- EECS 281: Data Structures and Algorithms

EECS 281 has both EECS 203 and 280 as prerequisites. All of the electives have EECS 281 as a prerequisite. Thus, completing the minor requires a minimum of three academic terms.
2. Electives: At least one 4-credit elective selected from EECS 388 (effective Winter 2016, retroactive to Fall 2014), 482, 483, 484, 485 (effective Winter 2016, retroactive to Fall 2014), 487, 490, 492, and 493.

## Electrical \& Computer Engineering Division

Electrical Engineering provides students with a fundamental background in the basic theoretical concepts and technological principles of modern electrical engineering. A flexible curriculum allows students to emphasize a wide variety of subject areas within the field, including: analog and digital circuits, communication systems, control systems, electromagnetics, integrated circuit (microprocessor) design, signal processing, microelectromechanical devices, solid state electronics, and optics and photonics. Common efforts of electrical engineers include making systems and components smaller, faster, more energy efficient, and less costly, designing systems for the generation, storage and distribution of energy, and developing algorithms for extraction of information from signals.

## Questions?

Students who have questions about the EE minor, or who would like advice about pursuing the minor, should contact the EECS Undergraduate Advising Office to set up an appointment with an advisor.

Undergraduate Advising Office
EECS Department
3415 EECS Building
University of Michigan
Ann Arbor, MI 48109-2122
Telephone: (734) 763-2305
www.eecs.umich.edu
e-mail: ugadmin@eecs.umich.edu

## Electrical Engineering Minor

A minor in Electrical Engineering is not open to Computer Science majors
As the lines between engineering and scientific disciplines become increasingly blurred, many students are forced to make tough decisions about which major to choose. A minor in Electrical Engineering (EE), offered through the ECE division of the EECS Department, is designed to provide an avenue for a diverse education for students outside of the EECS department. Due to the extensive breadth of EE discipline areas, students seeking a minor in EE have a spectrum of choices for the program paths they choose. Path options include Applied Electromagnetics, Circuits, Communications, Control Systems, Optics, Signal Processing, and Solid State.

Intended Audience. While the minor would be open to all qualified students in LSA, it is expected to be of interest primarily to students in the Physical Sciences (who both use complex electronics and signal processing to collect and analyze data, and also contribute to improved electronic
devices), Mathematics (improved algorithms for a wide variety of applications including signal processing, communications, and control), and Life Sciences (electronics, signal processing, and electromagnetics for research and patient treatment). It may also be of interest for students in pre-law programs planning a career in patent law, or in other areas.

Note: Most EECS courses in the Electrical Engineering minor count as nonLSA credits. LSA students may use a maximum of 20 credits of non-LSA course work toward the total 120 credits required for the degree.

Prerequisites to the Minor. ENGR 101; MATH 115, 116, 216, and 216 or equivalent; PHYSICS 140/141 and 240/241 or equivalent (Each course must be completed with a C or better.). LSA students are not required to take CHEM 125, 126, 130, or ENGR 100.

The EE minor is open to all students across campus as long as the eligibility requirements stated below are met:

1. Students must have an average of 2.0 or higher at time of declaring the EE minor
2. Students must have completed all Math and Physics prerequisites with a grade of $C$ or better
3. Students pursuing a major in Electrical Engineering (EE), Computer Engineering (CE) and Computer Science (CS - including LSA/CS) are not eligible for the EE minor

Minor Program. A minimum of 15 credits. Each course must be completed with a grade of a C or better to count toward the minor. At least one elective course must be at the 400 -level or higher.

1. EECS 215
2. One of the following program core courses: EECS 216, 230, 270, 320
3. Two electives from among the following courses, chosen in consultation with and approved by the minor advisor: EECS 216, 230, 270, 320, 311, 312, 330, 334, 370, 373, 411, 413, 414, 420, 421, 423, $425,427,429,430,434,451,452,455,460,461,470,530$.

Other EECS classes may be used with the prior approval of the EE Chief Program Advisor. These classes must be of similar level to this defined list. Courses which lie principally in the discipline of Computer Science will not be allowed. Students with these interests are referred to the Computer Science minor.

Minimum Grade Policy. A grade of C is required for all prerequisites and courses used to satisfy the minor.

## Suggested Program Options

1. Systems: Communications, Control, Signal Processing
2. Electromagnetics and Optics
3. Circuits and Solid State
4. Energy and Power Systems

| Paths Option | Required <br> Core | Path <br> Preparation <br> Core | Elective (1) | Elective (2) |
| :--- | :---: | :---: | :---: | :---: |
| 1. Systems |  | 215 | 216 | $451,455,460$ |
| 2. Electromagnetics \& Optics | 215 | 230 | 330,334 | $451,452,455,460,461$ (no duplicates) |
| 3. Circuits \& Solid State | 215 | 270 | $311,312,320$ | $411,413,414,420,421,423,425,427,429$ |

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| 4. Energy \& Power Systems | 215 | 320 | $418,419,463$ | $418,419,463$ |
| :---: | :---: | :---: | :---: | :---: |

## English Language and Literature

3187 Angell Hall
435 South State Street
(734) 764-6330 (phone)
(734) 763-3128 (fax)
www.Isa.umich.edu/english

## U-M ENGLISH MISSION STATEMENT

The University of Michigan's English department is dedicated to four related endeavors: surveying and analyzing the diverse range of texts in the English language; researching and teaching the rich history of that language; fostering exceptional creative as well as critical writing; and studying texts in relation to other cultural phenomena. Our mission as educators is to enable students to become the finest readers and writers of literary texts that they can be. Because those texts in their infinite variety take as their subjects our fellow humans, our histories, and our cultures, we aim in effect to equip our students both to read the world, and write the future, with subtlety, acumen and precision.

The Department of English focuses primary attention on the analysis and enjoyment of works of imaginative literature. Drawing on the rich variety of texts produced over the last millennium and a half in diverse forms of English from every part of the globe, our courses aim at a subtle and flexible understanding of the content of these texts and a sensitive appreciation of their style and form.

The interests the department addresses and the studies it sponsors, however, range far beyond the study of imaginative literature. Its courses offer instruction in writing, including exposition and creative writing, whether prose fiction, poetry, or drama. An increasing number of our courses involve substantial use of computers and extended inquiry into information networks. The English language itself, its history, structure, and diverse traditions of use, is the focus of yet other courses. Still others focus on literary theory, examining strategies of literary interpretation, evaluation, and appreciation and considering the ways in which literary texts relate to other forms of cultural representation.

One special feature of this English Department consists in the number of courses it offers jointly with other programs in the College - Women's Studies, for example, Afro-American and African Studies, American Culture (Native American Studies, Latina/o Studies, Asian American Studies), Studies in Religion, Comparative Literature, Medieval and Early Modern Studies, and Screen Arts and Cultures. The varieties of materials and the diverse backgrounds and interests of students involved in such courses present extraordinary opportunities for intellectual growth.

The present study of literature has returned with particular force and new perspectives to a very old consideration - that language and literature are necessarily understood as social products and agents, deeply implicated in the processes and questions that interest and, at times, agitate society more generally. These issues as represented in texts - issues of ethics, of political order, of economic and ethnic difference, of gender, of systems of belief - recur as a regular feature of discussion in many of our courses.

## English

May be elected as a departmental major
The following paragraphs describe typical patterns of study in the department and indicate the various ways in which a student can, with much opportunity for individual initiative, form a challenging and rewarding major within it.

Prerequisites to the Major. Students who wish to concentrate in English must take as prerequisite ENGLISH 298 (Introduction to Literary Studies).

Degree Program Options. The Department of English Language and Literature offers three main routes toward the major: (1) the General Program; (2) the Honors Program; and (3) the Creative Writing Program. The department also offers a minor in creative writing for non-majors. Students electing any of these may work simultaneously toward a secondary school teaching certificate. Students within the General

Program are strongly encouraged to select three upper-division courses within one of the optional areas of specialization below (or one designed by a student and an advisor). Possible areas of specialization are:

- Medieval Literature in English (Pre-1600),
- Early Modern (c.1500-1700),
- The Long Eighteenth Century (late $17^{\text {th }} \mathrm{c}$. through early $19^{\text {th }} \mathrm{c}$.),
- Nineteenth Century (through Modernism),
- Twentieth and Twenty-First Century (Modernism through Contemporary),
- Literatures of the Americas,
- World Literatures in English,
- Literary Criticism and Theory,
- Genre Studies,
- Studies in Race \& Ethnicity,
- Sexuality/Gender Studies,
- Drama and Performance Studies,
- Language, Writing, and Rhetoric.

Students must complete a course with a grade of C- or better to have it count toward the Requirements for the Major.

Advising. Students are encouraged to discuss their academic program and related concerns with an English department advisor. Appointments are scheduled on the English Department's website under academic advising. For questions of immediate concern or general questions about the major, students may speak with the Undergraduate Administrator by phoning (734) 764-6330 or by coming to 3187 Angell Hall.

Peer Advising Program. The English Undergraduate Office offers Peer Advising hours where students can come in and ask questions about the various programs, and declare their major while getting a student's perspective on what it's like to be an English major. Check on the website or in the main office for their advising hours.

Teaching Certificate. English majors in any of the programs above may also apply to be granted a teaching certificate. Students in the General Program must elect, in addition to the pattern of courses there prescribed, a course in composition (normally WRITING 300 or 430) and a course in English language (ENGLISH 305, 308, or 406). Honors candidates must elect ENGLISH 305 in addition to the courses required for their program.

The general requirements for a teaching certificate are described elsewhere, and are available from the School of Education Teacher Education office, 1228 School of Education Building. A brochure summarizing these requirements is available in the English Office. Application to the certificate program itself must be made through the School of Education. The deadline is January 15 for the following academic term. Please check their website:
www.soe.umich.edu
Upper-Level Writing Requirement. Majors in English may meet this requirement by taking ENGLISH 325, 398, 425, 428, or 496. A published list of English-approved courses can be found in 3187 Angell Hall. For those in the Honors and Creative Writing Programs, the writing requirement is met within their curriculum, which culminates in the supervised composition of the senior thesis.

## The General Program

## Effective Winter 2016 9/30/2015 and 10/22/2015

Students in the General Program must successfully complete 30 credits in ENGLISH courses numbered 300 or above. [Students must complete a course with a grade of $C$ - or better to have it count toward the requirements for the major.]

These courses must include at a minimum:

- two courses on literature written primarily before 1830, at least one of which must be on literature written primarily before 1642
- one course on literature taken prior to 1900
- one course in American literature
- a poetry course
- one course designated "Identity and Difference"

The department will offer in any one term a considerable range of courses designed to meet these requirements. A list of which courses meet a given requirement will be available each year in the English Undergraduate Office, online at: www.Isa.umich.edu/english/undergraduate/courses/ or from an English department advisor.

Majors should note that no more than two courses in expository or creative writing may be counted toward the minimum 30 credits at the upper level required for the major, although students may elect any number of such courses, subject to availability of spaces and to College limits on total elections of courses in any one department. Also, no more than six upper-level credits of Independent Study may count toward the major. With written prior approval by the undergraduate administrator, courses elected in other departments or programs may on occasion be used as part of a major. Independent study projects cannot be used to meet department program requirements.

Students considering the major in English should elect ENGLISH 298 during the sophomore year. Then, while fulfilling the requirements for the major, they may elect such a pattern of courses as will provide the course of study they find most helpful and satisfying. Students are strongly encouraged to choose an optional area of specialization and take three upper-level courses within the submajor. A full list of areas of specialization is available in the English Undergraduate office, online, or from a department advisor. Please refer to the Handbook for English Concentrators for more information on how to design specific paths of study. All ENGLISH courses applied to the major must meet a minimum grade requirement of C -

## The Honors Program

Joining the English Department's Honors Program means becoming a part of a small, intensely committed group of teachers and students all working toward achieving excellence in the related disciplines of reading, understanding, and writing about texts. Honors courses and the program at large place a premium on discussion, on sustained elaboration of ideas inside and outside the classroom, on conceiving of projects in complex and engaging ways, on learning to do research, and on presenting the fruits of that research in expressive, lucid prose.

Students interested in the Honors Program should apply for admission as soon as possible after the beginning of their sophomore year. Since students generally have not decided to pursue Honors before they have completed the sophomore prerequisite for the English major (ENGLISH 298), almost all applicants for admission to Honors come in the winter term of the sophomore year or the fall term of the junior year. Applications are due at the end of the seventh week of each term. Though the program occasionally accepts a few late applicants (i.e., students applying in the winter term of their junior year), admission is more difficult to achieve if students apply late, and students' chances for success in the program are greatest if, before the first term of your senior year, students have taken at least one theory course (preferably ENGLISH 390 or 490) and begun thinking about a possible focus for their thesis. The application consists of a cover sheet; a transcript; a 500-word statement of purpose; and a writing sample. Students must also be maintaining a 3.5 GPA or better in the major.

- Honors students take a course in literary theory, usually ENGLISH 390 or 490. It is recommended that this be done during the student's junior year.
- Two courses from ENGLISH 397 (or 497), 450 or 451.
- Honors students write a thesis of approximately sixty pages in length during the senior year - a project that is designed to be the single most important, most meaningful piece of work students undertake as English majors at the University. Students write most of their thesis in a required year-long course, "Research and Thesis Writing" (ENGLISH 495/496). Students are guided throughout much of their senior year by a faculty advisor chosen in the winter term of junior year. The completed thesis is due in mid-March of the senior year.
- During graduation weekend, Honors students will participate in an Honors Symposium, at which students make brief presentations of their theses to interested faculty, friends, and family.


## The Creative Writing Program

Students interested in the department's offerings in creative writing should begin with ENGLISH 223, an introduction to the reading and writing of modern poetry and prose fiction and to the workshop method of critiquing student writing. ENGLISH 223 is a prerequisite to ENGLISH 323 (Advanced Creative Writing in Fiction) and 324 (Advanced Creative Writing in Poetry), but admission into ENGLISH 323 and 324 is based on a portfolio submission. There is a "permission of instructor" restriction on these courses. At the advanced level students may elect (with the instructor's permission) the advanced fiction workshop (ENGLISH 423) or the advanced poetry workshop (ENGLISH 424).

English majors who wish to specialize in the writing of poetry or prose fiction may, in the winter term of their junior year, apply to the Creative Writing Submajor, which is an optional path to a Bachelor of Arts degree in English. Students in the program take the creative writing workshops described above in sequence, and, in their last term, compile a major manuscript of poetry or prose fiction while working closely with the creative-writing faculty in a tutorial reserved for submajors (ENGLISH 428).

Students must complete a course with a grade of C- or better to have it count toward the requirements for the major.

The program is small and highly selective; however, students not enrolled in the submajor may still pursue their interest in creative writing by applying to the appropriate upper-level workshops. Those students who have earned at least a 3.5 GPA in the major may apply for Creative Writing Honors after they have been accepted to the submajor. Honors will be awarded, as warranted, on the basis of the thesis.

## Creative Writing Minor

Not open to students with a major in English, or Creative Writing in the Residential College, nor to those electing a minor in Writing through the Sweetland Center for Writing

Students wishing to pursue a minor in Creative Writing must develop a specific plan for its completion in consultation with an English Department undergraduate department advisor.
Being able to work creatively with ideas through words is elemental to a humanistic education, and can complement information-based learning in productive and exciting ways. A minor in Creative Writing allows students with a strong interest in the writing of either poetry or prose fiction to develop and explore their craft through both workshop-formatted courses as well as through courses in literary history.

Prerequisites to the Minor: ENGLISH 223. Students must submit a portfolio of writing after completion of ENGLISH 223 for admittance into the minor. Once accepted into the minor, students will pursue either a poetry or prose fiction track at the 300- and 400-levels.

Applications for admission into the Creative Writing Minor are due on April 1 (Fall Term) and December 1 (Winter Term). Please fill out the application and attach a representative sample of your writing and submit to the Undergraduate Studies Office in 3187 Angell Hall.

Requirements for the Minor: 15 credits of additional courses, to be chosen from the following categories, as described below.
a. One course in Creative Writing in poetry or prose fiction at the intermediate level (ENGLISH 324, poetry or ENGLISH 323, prose fiction).
b. One course in Creative Writing in poetry or prose fiction at the advanced level (ENGLISH 424, advanced poetry, or ENGLISH 423, advanced fiction). Either ENGLISH 423 or 424 would satisfy the minor's Upper-Level Writing Requirement.
c. Nine other credits in either craft or literary history courses at the 300or 400 -level. Upon consultation with an advisor, a student, if interested in writing both poetry and prose, may fulfill three of these credits in a 300 -level Creative Writing course in the genre other than

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the one $s /$ he is majoring in.

## English Language Institute (ELI)

555 South Forest Avenue
(734) 764-2413 (phone)
(734) 763-3876 (fax)
www.Isa.umich.edu/eli
e-mail: eli-information@umich.edu
The English Language Institute offers instruction in academic English to international students enrolled in the University. The main purpose of this instruction is to help non-native speakers to become effective and fully participating members of the academic community. For this reason, the majority of the ELI courses are primarily concerned with English for Academic Purposes. Most of these courses address specific areas such as pronunciation, lecture comprehension, or academic grammar and usually involve no more than 20 contact hours per term. In major areas such as speaking and writing, a sequence of courses of increasing difficulty and specialization is available.

The ELI offers courses in Winter and Summer Terms for international graduate student instructors in conjunction with the Center for Research on Learning and Teaching (CRLT) and offers language courses throughout the academic year for non-native speaking GSIs that address the communicative language needs of classroom, lab, and office hours.

The ELI provides a Writing Clinic and a Speaking Clinic as one-on-one facilities for those who have taken or are taking ELI courses in the relevant areas or are deemed not to need regular classroom instruction.

In addition, the ELI offers courses for students interested in the instructional aspects of language learning and teaching.

## Summer English Language Program

The ELI offers a fee-based Summer English Language Program which is noncredit bearing. It is comprised of three separate programs: English for Academic Purposes, English for Business Studies, and English for Legal Studies.

English for Academic Purposes is designed for students who have been accepted to an English speaking university and wish to improve their language and study skills before beginning their academic program.

English for Business Studies focuses on the special nature of business communications and the language ability needed for exchange between people from different business cultures in both academic and nonacademic settings. This course is designed for foreign business majors and international managers who wish to improve communication skills.

English for Legal Studies is designed for students who have been accepted into a U.S. law school. The focus is on the language, cultural, and academic skills needed to succeed in a rigorous law school program.

For further information, call (734) 764-2413.

## Program in the Environment (PitE)

1120 Undergraduate Science Building
204 Washtenaw Avenue
(734) 763-5065 (phone)
(734) 647-7892 (fax)
www.lsa.umich.edu/pite
e-mail: Environment.Program@umich.edu
The Program in the Environment is an undergraduate degree program housed in the College of Literature, Science and the Arts (LSA). This collaborative venture includes courses taught by faculty in Literature, Science, and the Arts, School of Natural Resources and Environment, College of Engineering, Ford School of Public Policy, Stamps School of Art and Design, Taubman College of Architecture and Urban Planning and School of Public Health. The resulting curriculum presents an expanded range of opportunities for students interested in environmental careers.

The Program in the Environment trains students to ensure basic scientific literacy, familiarity with advanced problem-solving techniques, and an ability to integrate scientific and social scientific approaches in addressing environmental problems. The program's interdisciplinary approach requires coursework in the natural sciences, social sciences and the humanities. It combines breadth, through exposing students to a variety of disciplines and methodological skills, and depth, through requiring a sequence of courses in one of three specialization areas: Environmental Sciences, Environmental Social Sciences, or Culture and Environment. Majors are required to spend time off campus in an organized field study or a supervised internship.

Students who complete the major in the Environment will earn either a B.S. or an A.B. degree, depending upon their course of study (the B.S. requires 60 credits of courses in science and mathematics). The degree is awarded collaboratively by LSA and SNRE and bears the names of both schools.

Natural and Earth Systems Science courses for the major and Natural Science Courses for the minor: Choose any natural science course at the 200-level or above in consultation with the department advisor.

Breadth Social Studies Courses for the major and Environmental Social Science Courses for the minor.

| ANTHRCUL | 256 |
| :--- | :--- |
| ARCH | 423 |
| CEE | 307 |
| COMM | 413 |
| ECON | $330,360,370$ |
| EDCURINS | 382 |
| EEB | 316,318 |
| EHS | 588 |
| ENVIRON | $203,207,208,211,222,223,237$ (or prior to Fall 2016, |
|  | $221), 242,256,270,290,302,306,308,312,313,316$, |
|  | $318,320,321,335,345,350,356,360,361,365,367$, |
|  | $370,375,382,390,391,405,407,408,412,413,448$, |
|  | $449,462,475,490$ |
| HISTORY | 223,237 (or 222 prior to Fall 2016) |
| NRE | 449,475 |
| ORGSTUDY | 203,208 |
| POLSCI | $331,380,394$ |
| PSYCH | 384,385 |
| PUBPOL | 312,412 |
| RCIDIV | $316,318,390$ |
| RCSSCI | 211,222 |
| SOC | 222,380 |
| UP | 423 |

[These courses do not necessarily satisfy the SS distribution requirement.]

Culture and Environment Courses for the major and the minor.
Updated 10/5/2015 Effective Fall 2014

| AAS | 409,432 |
| :--- | :--- |
| AMCULT | 284,311 (section titled "Green Indigeneity"), 373 |
| ANTHRBIO | $364,365,373$ |
|  |  |
| ANTHRCUL | $256,328,408,439,440$ |
| ARCH | 209 ("Experiencing Architecture"), 212, 213, 357, 423 |
| ARTDES | 250 |
| ASIAN | 257,258 |
| CLARCH | 222,350 (section titled "The Art and Life in Roman |
|  | Villas"), 382 |
| CLCIV | 382 |
| EARTH | 238 |
| ENGLISH | 290 (section titled "American Environments: History, |
|  | Thinking, Reps"), 317(section titled "Green |
|  | Indigeneity"), 319 (section titled "Literature of Climate |
|  | Change"), 328, 346 (section titled "Embodiment / |
|  | Environment /Community") |
| ENVIRON | $221,223,238,240,244,256,270,284,301,304,320$, |
|  | $350,370,376,377,464$ |
| HISTART | $212,213,222,243,301,394$ (section titled "The Art and |
|  | Life in Roman Villas") |
| HISTORY | $222,223,238,284,285,373$ |
| ITALIAN | 310 |
| MOVESCI | 241 |
| PHIL | $224,240,355,356,359,361,366,376$ |
| RCHUMS | 334 ("Experiencing Architecture") |
| RCIDIV | 305 |
| STRATEGY | 411,445 |
| UC | 254 (section titled "Much Depends on Dinner") |
| UP | 357,423 |
| WOMENSTD | 344 (section titled "Embodiment / Environment / |
|  | Community") |

## The Environment

May be elected as an interdepartmental major

## Updated 10/5/2015 Effective Fall 2015

The major in Environment is intended to ensure scientific literacy, familiarity with advanced problem-solving techniques, and an ability to integrate scientific and social scientific approaches in addressing environmental problems. It serves students interested in environmental literacy as well as those interested in a wide range of career tracks related to environmental issues.

Prerequisites to the Major. Prerequisites need not be completed prior to declaring an Environment major. To ensure a common background and understanding of disciplines relevant to environmental study, students take all of the following (many of these courses also satisfy LSA area distribution):

1. Introductory Interdisciplinary Course (one of the following):

- ENVIRON 110 / AOSS 171 / BIOLOGY 110 / EARTH 171 / ENSCEN 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
- ENVIRON 111 / AOSS 172 / EARTH 172 / ENSCEN 172 / GEOG 111. Global Change: The Sustainability Challenge
- ENVIRON 201 / RCNSCI 202. Ecological Issues
- ENVIRON 270. Our Common Future
- CEE 260. Environmental Principles

2. BIOLOGY 162 OR 163 OR 171, OR 100 \& 111 (Introductory Biology)
3. CHEM 130 (General Chemistry)
4. ENVIRON 118\&119 / EARTH 118\&119 or ENVIRON 116 / EARTH 116 (Introduction to Geology)
5. ECON 101 (Principles of Economics I) or ENVIRON 211 / RCSSCI 211. (Social Sciences and Environmental Problems)
6. MATH 115 (Calculus I)

Requirements for the Major. A minimum of 32 credits required.
A. Core Courses. These courses expand students' knowledge of environmental problems and solutions by exposing them to a wide range of natural science, social science, and humanistic disciplines. Students select at the 200 level or above in each of the following categories.

1. Analytics: one course from STATS 250 or SOC 210.
2. General Ecology. One of the following:

BIOLOGY 281 / ENVIRON 281 and BIOLOGY 282 / ENVIRON 282, General Ecology and Lab
EEB 381 / ENVIRON 381 (General Ecology)
3. Environmental Social Science: Two courses chosen in consultation with the department advisor. One course must be at the 300 level or above.
4. Natural and Earth Systems Science: One course at the 200-level or above, chosen in consultation with the department advisor.
5. Culture and Environment: One course chosen in consultation with the department advisor.
6. Senior Capstone Course: One course chosen in consultation with the department advisor.
B. Field Experience Requirement. Students are required to spend time off-campus participating in a pre-approved Internship or Field/Study Abroad course.
C. Specializations. To gain a deeper understanding of applicable skills in one discipline of environmental study, students take three courses at the 300 -level or above, approved by the specialization committee, in one of the following areas: Environmental Science, Environmental Social Science, or Culture and the Environment.
Honors Plan. The Honors plan is open to students who have achieved a GPA of 3.5 or better. Request for admission should be made by completing an application available from the Program office by October 15 of the junior year. Honors majors will normally take a junior Honors seminar (ENVIRON 399) in which they develop research skills, identify a faculty advisor, and prepare the proposal for the Honors thesis project. In the senior year students enroll in ENVIRON 499 (thesis). The final version of the thesis is due on the last day of classes in the winter term of the senior year.

Teacher Certification. For information about teaching certificates, please contact the Program in the Environment.

Advising. Students interested in declaring either a major or minor must attend an information session. Information sessions are held through the Fall and Winter terms.

Appointments may be scheduled with advisors online at:
http://www.Isa.umich.edu/pite/academics/advising

## Minors in the Program in the Environment

Students wishing to pursue a minor in the Program in the Environment must develop a specific plan for its completion in consultation with the program's academic advisor. Appointments may be scheduled online at: www.Isa.umich.edu/pite/academics/academicadvising.

Students can either pursue a minor in the Environment or the Minor in Sustainability, but not both.

## Environment

A minor in the Environment is not open to students majoring in the Environment, to students in the School of Natural Resources and

Environment, nor to those pursuing a minor in Global Change or minor in Sustainability.

## Updated 10/5/2015 Effective Fall 2015

The goals of this minor are to enhance the environmental literacy of undergraduates by exposing them to various disciplinary approaches to environmental issues and problems and by providing opportunities for field-based experience and for the acquisition of analytical skills useful in solving environmental problems.
The intended audience is students seeking some measure of environmental literacy or preparing themselves for careers with an environmental dimension.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.
Requirements for the Minor: At least 17 credits of courses, to be elected from five categories as stated (at least two of the required courses must be at the 300-level or above):
A. Introductory interdisciplinary courses. One course chosen from:

- ENVIRON 110 / BIOLOGY 110 / EARTH 171 / AOSS 171 / ENSCEN 171. Introduction to Global Change I. Physical Impacts
- ENVIRON 111 / SOC 111 / GEOG 111 / AOSS 172 / ENSCEN 172. Introduction to Global Change II. Human Impacts
- ENVIRON 201. Ecological Issues
- ENVIRON 270. Our Common Future
- CEE 260. Environmental Principles
B. Environmental Natural Science. One course chosen in consultation with the department advisor.
C. Environmental Social Science. One course chosen in consultation with the department advisor.
D. Culture and Environment. One course chosen in consultation with the department advisor.
E. Analytics or Field Experience (one course):

1. Field Experience. The field experience requirement may be satisfied in two ways: by a field course at the U-M Biological Station, Camp Davis, or other approved field location; or by an approved offcampus internship that results in academic credit.
2. Analytics. The analytics requirement may be satisfied by electing STATS 250 or SOC 210 or equivalent (STATS 265 or IOE 265).

## Sustainability

A minor in Sustainability is not open to students majoring in the Environment, to students in the School of Natural Resources and Environment, nor to those pursuing a minor in the Environment.

## Students who are electing a minor in Sustainability are excluded from earning the Sustainability Scholars Certificate.

Sustainability, although dealing directly and intimately with environmental issues, has as its core goal the development of systems of human behavior to enable both current and future generations to maintain a quality of life that is both productive and pleasing. To achieve such a goal requires an interdisciplinary approach to answer a variety of questions such that human needs and desires can best be met:

- How do groups and individuals compete or cooperate in the distribution of scarce resources? How can open, fair and effective governance structures be better developed and implemented to promote sustainable consumption?
- How can economies be modified to incorporate the value of ecosystem services critical for human wellbeing? What future business models can be developed that more quickly identify and respond to human needs while simultaneously minimizing consumption and maximizing wealth generation?
- How do various environments at different length scales (local, regional, continental, and global) respond to anthropogenic
alterations due to resource consumption and waste generation? What is the time scale for such alterations to become visible, and perhaps irreversible? How can human societies best adapt to such changes?
- How do natural systems respond to changing anthropogenic inputs? What are the determinants of sustainable yield? What feedback cycles between natural and human systems determine health and welfare of humans and their domesticated biota?
- What is the role of technology and design in meeting sustainability goals, particularly in urban environments where the majority of the human population currently lives? How can goods and services best be provided such that a high standard of living can be achieved while minimizing resource use and waste generation?

The objectives of the sustainability minor are to:

1. educate students from across campus on interdisciplinary approaches of historic and emergent sustainability problems
2. engage students in team projects examining real-world problems both on and off-campus
3. provide students practical experiences/leadership experiences that enable them to integrate their skills to address complex sustainability problems.

As part of the minor activities, the challenges of crafting a suitable definition of sustainability will be highlighted. This will be part of developing understanding of the need for clear and effective communication across disciplines, which will be stressed to ensure effective teamwork is pursued such that the interdisciplinary whole is greater than the sum of individual disciplinary efforts.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Requirements for the Minor: At least 18 credits of courses, to be elected from the following categories as stated:

## 1. Introductory course:

ENVIRON 207: Sustainability and Society.
2. Practical / Field Experience Course: Students pursuing the Minor in Sustainability are required to spend time off-campus participating in a pre-approved Internship or Field Experience / Study Abroad Course. This provides students with an opportunity to have greater exposure to sustainability issue(s) and develop greater skills in identifying and helping to resolve current and emerging sustainability issue(s).

The following courses have been pre-approved, but students may petition other courses to meet this requirement prior to enrollment, with approval granted by PitE if the course is deemed to be suitably focused on sustainability issues. Any petitions must be received and approved before enrolling in these courses. Courses with emphasis on basic aspects of environmental, social, and natural sciences and humanities are not acceptable to meet this requirement.

- EARTH 344 / ENVIRON 344: Sustainable and Fossil Energy: Options and Consequences
- ENVIRON 302: Topics in Environmental Social Science (section titled "Sustainable Neighborhoods: Experiential Learning and Active Engagement in Detroit")
- ENVIRON 344 / EARTH 344: Sustainable and Fossil Energy: Options and Consequences
- ENVIRON 398: Environment Internship Program
- STDABRD 303: UM at Institute for Central American Development Studies, San Jose, Costa Rica
- STDABRD 308: UM at EcoQuest New Zealand
- STDABRD 358 UM / CIC Political Science Internships in British Government and Politics, London, England
- STDABRD 452: UM at St. Peter's College, Oxford, England
- STDABRD 471: UM at Middle East Technical University, Ankara, Turkey

3. Capstone Course / Design Experience. At least one upper-division course addressing major sustainability issues in settings with small
sections emphasizing discussion and drawing on interdisciplinary experiences of students.

- CEE 307 / ENVIRON 407: Sustainable Cities
- ENVIRON 302: Topics in Environmental Social Science (section titled "Sustainable Neighborhoods: Experiential Learning and Active Engagement in Detroit")
- ENVIRON 391 / RCIDIV 391: Sustainable Campus
- ENVIRON 401: Modeling Human-Natural Systems
- ENVIRON 404: Cars, Energy, and Chemistry
- ENVIRON 407 / CEE 307: Sustainable Cities
- RCIDIV 391 / ENVIRON 391: Sustainable Campus

4. Distribution Requirement: Students must take courses from a preapproved in at least three of five areas. Courses with emphasis on basic aspects of environmental social and natural sciences and humanities are not acceptable to meet these requirements.

## A. Society, Culture, Justice and Citizenship

- AMCULT 496: Social Science Approaches to American Culture (section titled "American Values and Sustainability")
- ANTHRCUL 256 / ENVIRON 256: Culture, Adaptation and Environment
- ANTHRCUL 439: Economic Anthropology and Development
- EDCURINS 382 / ENVIRON 382: Intro to Environmental Education and Sustainable Development
- ENGLISH 320: Literature and the Environment, or ENVIRON 377: Literature and the Environment
- ENVIRON 211: Social Sciences and Environmental Problems
- ENVIRON 222: Introduction to Environmental Justice
- ENVIRON 256 / ANTHRCUL 256: Culture, Adaptation and Environment
- ENVIRON 304: Topics in Culture and Environment
- ENVIRON 320: Environmental Journalism: Reporting about Science, Policy and Public Health
- ENVIRON 360 / PSYCH 384: Behavior and Environment
- ENVIRON 361 / PSYCH 385: The Psychology of Environmental Stewardship, or NRE 561: The Psychology of Environmental Stewardship
- ENVIRON 376: Environmental Ethics
- ENVIRON 377: Literature and the Environment, or ENGLISH 320: Literature and the Environment
- ENVIRON 382 / EDCURINS 382: Intro to Environmental Education and Sustainable Development
- NRE 501: Grad Experimental (section titled "Justice Issues in Conservation and Sustainability")
- NRE 561: The Psychology of Environmental Stewardship, or ENVIRON 361 / PSYCH 385: The Psychology of Environmental Stewardship
- PHIL 240: Environmental Ethics
- PHIL 355: Contemporary Moral Problems
- PSYCH 384 / ENVIRON 360: Behavior and Environment
- PSYCH 385 / ENVIRON 361: The Psychology of Environmental Stewardship, or NRE 561: The Psychology of Environmental Stewardship
- SOC 415: Culture and Consumption
B. Business and Economics
- BIT 445 / STRATEGY 445: Base of the Pyramid: Business Innovation for Solving Society's Problems
- EARTH 380 / ENVIRON 380: Mineral Resources, Economics, and the Environment
- ENGR 390: Special Topics (section titled "Social Entrepreneurship")
- ENGR 521: Clean Tech Entrepreneurship
- ENVIRON 380 / EARTH 380: Mineral Resources, Economics, and the Environment
- SOC 315: Economic Sociology
- STRATEGY 310: World Economy
- STRATEGY 411: The Corporation in Society
- STRATEGY 445 / BIT 445: Base of the Pyramid: Business Innovation for Solving Society's Problems


## C. Public Policy, Urban Planning, and Law

- AAS 426: Urban Redevelopment and Social Justice
- AOSS 480 / NRE 480: Climate Change: The Move to Action
- ARCH 423 / ENVIRON 370 / UP 423: Introduction to Urban and Environmental Planning
- CMPLXSYS 391 / POLSCI 391: Applied Complex Systems: Emergent Challenges
- EEB 318 / ENVIRON 318 / RCIDIV 318: Food, Land and Society
- EHS 588 / ENVIRON 475 / NRE 475: Environmental Law
- ENVIRON 270: Our Common Future - The Ecology, Economics and Ethics of Sustainable Development
- ENVIRON 306: Global Water
- ENVIRON 312 / POLSCI 380: Environmental Politics and Policy
- ENVIRON 318 / EEB 318 / RCIDIV 318: Food, Land and Society
- ENVIRON 350: The Built Environment: Introduction to Landscape Change
- ENVIRON 365: International Environmental Policy
- ENVIRON 370 / ARCH 423 / UP 423: Introduction to Urban and Environmental Planning
- ENVIRON 405: Urban Sprawl: Policy and Politics
- ENVIRON 412: Environmental Values in Public Policy
- ENVIRON 449 / NRE 449: Organizational Theory and Change
- ENVIRON 475 / EHS 588 / NRE 475: Environmental Law
- NRE 449 / ENVIRON 449: Organizational Theory and Change
- NRE 475 / ENVIRON 475 / EHS 588: Environmental Law
- NRE 480 / AOSS 480: Climate Change: The Move to Action
- NRE 501: Grad Experimental: (section titled "Urban Agriculture")
- PHYSICS 481 / PUBPOL 481: Science, Technology and Public Policy
- POLSCI 380 / ENVIRON 312: Environmental Politics and Policy
- POLSCI 391 / CMPLXSYS 391: Applied Complex Systems: Emergent Challenges
- PUBPOL 201: Systematic Thinking About Problems of the Day
- PUBPOL 481 / PHYSICS 481: Science, Technology and Public Policy
- RCIDIV 302: Advanced Issues in Science, Technology, Medicine, and Society (section titled "Environmental Literature / Social Justice")
- RCIDIV 318 / ENVIRON 318 / EEB 318 / : Food, Land and Society
- UP 423 ARCH 423 / ENVIRON 370 / : Introduction to Urban and Environmental Planning
- UP 425: Urban Systems


## D. Natural Sciences \& Public Health

- AAS 409 / ANTHRCUL 408: Maternal / Child Health and Environmental Pollution in Africa
- ANTHRCUL 408 / AAS 409: Maternal / Child Health and Environmental Pollution in Africa
- EHS 500: Principles of Environmental Health Science
- EARTH 380 / ENVIRON 380: Mineral Resources, Economics, and the Environment
- ENVIRON 310: Toxicology: The Study of Environmental Chemicals and Disease
- ENVIRON 317: Conservation of Biological Diversity
- ENVIRON 380 / EARTH 380: Mineral Resources, Economics, and the Environment
- HMP 200 / PUBHLTH 200 / PUBPOL 210: Health and Society: Introduction to Public Health
- PUBHLTH 200 / HMP 200 / PUBPOL 210: Health and Society: Introduction to Public Health
- PUBPOL 210 / PUBHLTH 200 / HMP 200: Health and Society: Introduction to Public Health


## E. Technology, Engineering, and Design

- ARCH 357 / UP 357: Architecture, Sustainability and the City: Ideas, Forces, and People
- ARTDES 250: Art-Design Perspectives III: Technology and the Environment
- AUTO 533 / MECHENG 433: Advanced Energy Solutions
- CEE 265: Sustainable Engineering Principles
- CEE 567 / ESENG 567: Energy Infrastructure Systems
- CMPLXSYS 250 / PUBPOL 250: Social Systems, Energy, and Public Policy
- ESENG 567 / CEE 567: Energy Infrastructure Systems
- ENVIRON 309: GIS Explorations of the Past, Present, and Future
- ENVIRON 367: Global Enterprise and Sustainable Development
- MECHENG 433 / AUTO 533: Advanced Energy Solutions
- NRE 574 / PUBPOL 519 / RCNSCI 419: Sustainable Energy Systems
- PUBPOL 250 / CMPLXSYS 250: Social Systems, Energy, and Public Policy
- PUBPOL 519 / NRE 574 / RCNSCI 419: Sustainable Energy Systems
- RCNSCI 419 / NRE 574 / PUBPOL 519: Sustainable Energy Systems
- UP 357 / ARCH 357: Architecture, Sustainability and the City: Ideas, Forces, and People

Advising: The staff of the Program in the Environment will be responsible for advising students in planning and completing this minor.

## Food and the Environment Minor

## Effective Fall 2015, retroactive to Fall 2014 - 9/30/2015

The Food and the Environment Minor is an interdisciplinary program of study with courses addressing questions of food production, consumption, and policy in relation to the environment, human health, and equity.

Today's global food system produces unprecedented quantities of food. Nevertheless, the World Health Organization estimates that over one billion people lack adequate food to satisfy the minimum standards of nutrition, despite more than adequate global supplies, a perplexing pattern that has been evident for many years. An even more perplexing pattern is the irony that obesity has become a major health problem for some, even as hunger continues to plague others. Moreover, the modern agricultural system that developed during the past century is increasingly recognized as environmentally unsustainable, in many cases causing environmental degradation and substantial losses in biological diversity. Finally, for the consumers, food safety has emerged as a critical issue and for the producers -- farmers and farm workers -- workplace safety and low compensation threaten the sustainability of their livelihoods.

A global food system that simultaneously produces hunger and obesity, that generates significant collateral environmental degradation and that compromises the well-being of consumer and producer alike, challenges the academic community to engage in serious analysis and action. This challenge has been partially met with the emergence of a new paradigm that emphasizes sustainability and social equity rather than profit and production at its core. Contributions to this new paradigm are emerging from many sectors of society, especially at the grassroots level (e.g., local food systems, increased demand for organic and fair-trade products, reinvigoration of inner cities through urban agriculture, new business models such as "community supported agriculture," etc.). The university is the ideal place to forge the intellectual foundation that will inform and guide the construction of a coherent path toward a sustainable and equitable food system, which helps to reinvigorate rural and urban communities, promote environmental protection and enhance economies at state, national and international levels.
This minor is intended for students with a keen interest in expanding their study of sustainable and equitable ways to produce and deliver nutritious food so as to improve people's health and livelihoods. The minor consists of courses analyzing the current food system across a range of disciplines, documenting some of its more unsustainable characteristics and proposing alternatives.

## Prerequisites to the Minor: None

Requirements for the Minor: The Food Systems Minor consists of no less than 5 courses for a total of at least 15 credits, at least two of which must be at the 300-level or above, from the following categories as stated:
A. Introductory Courses. Select at least one of the following as an orientation to the minor:

- BIOLOGY 101 / ENVIRON 101, "Food, Energy, and the Environment"
- ENVIRON 270, "Our Common Future: Ecology, Economics and Ethics of Sustainable Development"
- ENVIRON 290, "Food: The Ecology, Economics, and Ethics of Growing and Eating"
- UC 254, "Sophomore Interdisciplinary Seminar" (section titled 'Much Depends on Dinner')
B. Topical Courses. Three courses chosen from the following:
- Any course listed above not used to satisfy the introductory or synthetic course requirement
- ANTHRBIO 364, "Nutrition and Evolution"
- ANTHRCUL 458, Topics in Sociocultural and Linguistic Anthropology (section titled 'Anthropology of Food and Eating')
- ARCH 357 / UP 357, "Architecture, Sustainability and the City: Ideas, Forces and People Shaping the Built Environment"
- BIOLOGY 102, "Practical Botany"
- CLARCH 382 / CLCIV 382, "Food in the Ancient World: Subsistence and Symbol"
- CLCIV 382 / CLARCH 382, "Food in the Ancient World: Subsistence and Symbol"
- EARTH 154, "Ocean Resources"
- EARTH 159, "Toward a Sustainable Human Future"
- EARTH 333, "Inexhaustible Seas?: Marine Resources and Environmental Issues"
- EHS 540, "Maternal and Child Nutrition"
- EHS 642, "Community Nutrition"
- ENVIRON 242, Topics in Environmental Social Science (section titled '2.5 Million Years of Human Foods and Foodways: A Framework for Understanding Modern Diets')
- ENVIRON 302, Topics in Environmental Social Science (section titled 'The Measure of Our Meals')
- ENVIRON 390 / RCIDIV 390, "Environmental Activism: Citizenship in a Republic"
- ENVIRON 421, "Restoration Ecology"
- HONORS 252, "Honors Natural Sciences Seminar" (section titled '2.5 Million Years of Human Foods and Foodways: A Framework for Understanding Modern Diets')
- NRE 501, "Graduate Experimental" (section titled ‘Urban Agriculture’)
- NRE 565, "Principles of Transition: Food, Fuel and Finance in a Biophysically Constrained, Ethically Challenged World"
- RCIDIV 390 / ENVIRON 390, "Environmental Activism: Citizenship in a Republic"
- UC 370, "UC Special Topics" (section titled 'The Measure of Our Meals')
- UP 357 / ARCH 357, "Architecture, Sustainability and the City: Ideas, Forces and People Shaping the Built Environment"
C. Synthetic Courses. Select at least one of the following courses, which synthesize approaches and knowledge bases relevant to the issue, as a conclusion to the minor:
- ANTHRCUL 458, "Topics in Sociocultural and Linguistic Anthropology" (section titled 'Food, Politics, and Environment')
- ARTDES 300, "Elective Studios" (section titled 'Sustainable Food System Design')
- EEB 498, "The Ecology of Agroecosystems"
- RCIDIV 316 / EEB 316 / ENVIRON 316, "Introduction to Food Systems"
or
RCIDIV 318 / EEB 318 / ENVIRON 318, "Food, Land, and Society"
Related Courses. The Program in the Environment will provide students with a list of "cognate" or related courses that, while not labelled or
primarily described as food systems courses, would nonetheless be of keen interest to our minors.

Advising. PitE staff and faculty advisors working in tandem with faculty advisors in other units will help students navigate the Food Systems Minor.

## Energy Science and Policy minor <br> Effective Winter 2016

Energy underlies all of our modern technological, social, political, economic and ecological systems. Yet, the general public has little knowledge of the concept of energy and how it is woven into the very fabric of society. On the one hand energy is an abstract idea of physics, and on the other hand it is a material realization in fuels and machines. Energy is obviously visible in the gasoline we consume, less visible in the electricity we use, and almost invisible in a vast array of uses such as in delivery of medical treatment, education, social infrastructure, and public safety. Every academic discipline connects in some way to energy along its many paths from the extraction of fuels and materials to eventual end uses. Hence, the topic of energy can and should act as a medium and vehicle for the exchange of ideas among disparate fields. Ultimately, what we see as "energy" depends on resources extracted from nature and on the impacts that our uses of energy have on nature and the environment. The energy-use trajectory that the world is now tracking will, at some time, asymptotically or catastrophically, bump into fundamental constraints that will reshape the energy landscape. Broadly stated: Are our energy systems sustainable? If not, what could the world do differently?

In our current era, energy is so fundamental to every intellectual and practical endeavor that students should have the opportunity to study systematically energy problems in their various manifestations. Students will learn that "energy problems" are systems problems, in which systemconstructs within various disciplines are interconnected across disciplines. The minor in "Energy Science and Policy" provides the fundamentals for understanding what energy is and provides students with a coherent and rigorous introduction to the technical, social, and cultural contexts of contemporary problems related to "energy." Generally, students will come to understand how the pedagogical aims of their chosen discipline whether through critical writing, quantitative problem solving, or close analysis converge in the intersections of "energy problems."

## Prerequisites to the Minor. None.

Requirements for the Minor. This minor requires no fewer than five courses for a total of at least 15 credits, with at least two courses at the 300-level or above.

1. Introductory Course (one course; $\mathbf{3}$ credits minimum) - students take one, or both, of the following courses that will provide a sound introductory scientific orientation that is fundamental to understanding the basic concepts of energy:

- ENVIRON 250 / CMPLXSYS 250 / PUBPOL 250 - Social Systems, Energy, and Policy
- PHYSICS 210 - Energy for the Future

2. Courses: (four courses, and a minimum 12 credits, with at least two courses at the 300-level or above).

Students must take at least two courses representing approaches outside of or different from that of their area of concentration (e.g., humanists will have to take two topics courses from outside the humanities).

Select

- two courses from the Energy Economics \& Policy group
- two courses from the Energy Production, Extraction \& Technology group

OR select

- two courses from one of the above categories
- one course from the other of the above categories
- one Breadth course


## Energy Economics \& Policy

- ARCH 357 / UP 357 - Architecture, Sustainability and the City: Ideas, Forces and People Shaping the Built Environment.
- CEE 307 / ENVIRON 407 - Sustainable Cities.
- ECON 370 / ENVIRON 375 - Environmental and Resource Economics.
- ECON 437 - Energy Economics and Policy.
- EHS 588 / ENVIRON 475 / NRE 475 - Environmental Law.
- ENVIRON 312 / POLSCI 380 / PUBPOL 312 - Environmental Politics and Policy.
- ENVIRON 375 / ECON 370 - Environmental and Resource Economics.
- ENVIRON 407 / CEE 307 - Sustainable Cities.
- ENVIRON 475 / NRE 475 / EHS 588 - Environmental Law.
- GEOG 472 / UP 572 - Transportation and Land-Use Planning.
- INTLSTD 401 - International Studies Advanced Seminar, section titled "Politics of Energy in the Developing World."
- NRE 475 / ENVIRON 475 / EHS 588 - Environmental Law.
- POLSCI 380 / ENVIRON 312 / PUBPOL 312 - Environmental Politics and Policy.
- POLSCI 389 - Topics in Contemporary Political Science, section titled "Energy Politics".
- POLSCI 497 - Undergraduate Seminar in Comparative and Foreign Government, Section titled "Politics of Energy in the Developing World."
- PUBPOL 312 / ENVIRON 312 / POLSCI 380 - Environmental Politics and Policy.
- PUBPOL 564 - Government Regulation of Industry and Environment.
- UP 357 / ARCH 357 - Architecture, Sustainability and the City: Ideas, Forces and People Shaping the Built Environment.
- UP 572 / GEOG 472 - Transportation and Land-Use Planning.
- UP 671 - Public Policy and Transportation.


## Energy Production, Extraction \& Technology

- AUTO 533 / MECHENG 433 - Advanced Energy Solutions.
- CEE 230 - Energy and Environment.
- CEE 565 / ESENG 501 - Seminars on Energy Systems, Technology and Policy.
- EARTH 344 / ENVIRON 344 - Sustainable and Fossil Energy: Options and Consequences.
- EARTH 380 / ENVIRON 380 - Mineral Resources, Economics and the Environment.
- EECS 498 - Special Topics, section title "Grid Integration of Alternative Energy Sources".
- EECS 598 - Special Topics, section titled "Solar Cell Device Physics" or "Resonant Power Converters".
- ENVIRON 344 / EARTH 344 - Sustainable and Fossil Energy: Options and Consequences.
- ENVIRON 380 / EARTH 380 - Mineral Resources, Economics and the Environment.
- ENVIRON 404 - Cars, Sustainability, and Energy Conversion
- ESENG 501 / CEE 565 - Seminars on Energy Systems, Technology and Policy.
- MECHENG 433 / AUTO 533 - Advanced Energy Solutions.
- MECHENG 438 - Internal Combustion Engines.
- NRE 574 / PUBPOL 519 / RCNSCI 419 - Sustainable Energy Systems.
- PHYSICS 406 - Statistical and Thermal Physics.
- PUBPOL 519 / RCNSCI 419 / NRE 574 - Sustainable Energy Systems.
- RCNSCI 419 / PUBPOL 519 / NRE 574 - Sustainable Energy Systems.


## Breadth Courses

- AAS 359 / POLSCI 359 - African Politics.
- AAS 432 - Violent Environments: Oil, Development and the Discourse of Power.
- ANTHRCUL 439 - Economic Anthropology and Development.
- AOSS 480 / NRE 480 - Climate Change: The Move to Action.
- ARTDES 250 - Art, Design and the Environment.
- CEE 265 - Sustainable Engineering Principles.
- CHE 230 - Material and Energy Balances.
- EARTH 284 / ENVIRON 284 - Environmental Geology
- ECON 432 - Government Regulation of Industry.
- ECON 445 - The Economy of the People's Republic of China.
- ENGLISH 319 - Literature and Social Change, section titled "The Literature of Climate Change".
- ENGLISH 320 - Literature and the Environment, section titled Ecocriticism
- ENVIRON 221 / HISTORY 222 - Global Environmental History.
- ENVIRON 224 / HISTORY 224 / PUBPOL 224 - Global Nuclear Proliferation.
- ENVIRON 284 / EARTH 284 - Environmental Geology
- ENVIRON 304 - Literature and the Environment, section titled Ecocriticism.
- ENVIRON 365 - International Environmental Policy.
- ENVIRON 412 / PUBPOL 412 - Environmental Values in Public Policy.
- ES 445 / STRATEGY 445 - Base of the Pyramid: Business Innovation for Solving Society's Problems.
- GERMAN 326 - Intermediate German, section titled "Germany and the Environment"
- HISTORY 222 / ENVIRON 221 - Global Environmental History.
- HISTORY 224 / ENVIRON 224 / PUBPOL 224 - Global Nuclear Proliferation.
- HISTORY 241 - America and Middle Eastern Wars.
- HISTORY 285 / RCNSCI 275 - Science, Technology, Medicine, and Society.
- NRE 480 / AOSS 480 - Climate Change: The Move to Action.
- POLSCI 359 / AAS 359 - African Politics.
- POLSCI 364 - Public International Law.
- PUBPOL 224 / HISTORY 224 / ENVIRON 224 - Global Nuclear Proliferation.
- PUBPOL 412 / ENVIRON 412 - Environmental Values in Public Policy.
- RCNSCI 275 / HISTORY 285 - Science, Technology, Medicine, and Society.
- STRATEGY 445 / ES 445 - Base of the Pyramid: Business Innovation for Solving Society's Problems.


## Water and the Environment minor

## Effective Fall 2016

Virtually all academic disciplines connect to water in some way. The study of water occurs on nearly every spatial scale: from molecular to planetary.
While $70 \%$ of the surface of our planet is covered in water, less than $1 \%$ of the water on the Earth's surface is fresh water and only $0.08 \%$ of this is available for human use. Currently, 600 million people face water scarcity, and 2.7 to 3.2 billion people will face water shortages by 2025 . The decline in water quantity and quality is affecting myriad and complex interactions at multiple levels and scales, creating conflicts between governments and peoples, impacting local and global economies, and affecting human health and well-being.

This minor will offer students particularly interested in water issues a place where they can pursue in an organized fashion an environmentally oriented course of study of the topic.

## Prerequisites to the Minor: None

Requirements for the Minor. The minor consists of no fewer than 6 classes for a total of at least 18 credits.

1. Introductory Course: The Water Cycle, an Interdisciplinary Approach
2. Second Water-Centered Course. Select one from the following list:

- AOSS 171 / ENVIRON 110 / BIOLOGY 110 / EARTH 171 / ENSCEN 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
- AOSS 172 / ENVIRON 111 / EARTH 172 / ENSCEN 172 / GEOG 111. Global Change: The Sustainability Challenge
- BIOLOGY 109. Ecological Knowledge and Environmental Problem Solving
- BIOLOGY 110 / AOSS 171 / ENVIRON 110 / EARTH 171 / ENSCEN 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
- EARTH 110. Evolving Oceans
- EARTH 171 / AOSS 171 / ENVIRON 110 / BIOLOGY 110 / ENSCEN 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
- EARTH 172 / AOSS 172 / ENVIRON 111 / ENSCEN 172 / GEOG 111. Global Change: The Sustainability Challenge
- EARTH 206 / ENVIRON 206. How the Earth Works: The Water Cycle and Environment
- EARTH 222 / ENVIRON 232. Introductory Oceanography
- EARTH 277. Water in the $21^{\text {st }}$ Century
- ENSCEN 171 / AOSS 171 / ENVIRON 110 / BIOLOGY 110 / EARTH 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
- ENSCEN 172 / AOSS 172 / ENVIRON 111 / EARTH 172 / GEOG 111. Global Change: The Sustainability Challenge
- ENVIRON 110 / AOSS 171 / BIOLOGY 110 / EARTH 171 / ENSCEN 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
- ENVIRON 111 / AOSS 172 / EARTH 172 / ENSCEN 172 / GEOG 111. Global Change: The Sustainability Challenge
- ENVIRON 206 / EARTH 206. How the Earth Works: The Water Cycle and Environment
- ENVIRON 232 / EARTH 222. Introductory Oceanography
- GEOG 111 / AOSS 172 / ENVIRON 111 / EARTH 172 / ENSCEN 172. Global Change: The Sustainability Challenge
- HISTORY 240. The World Since 1492 Topic \#1 - Oceans in World History
- RCNSCI 110 / AOSS 171 / ENVIRON 110 / BIOLOGY 110 / EARTH 171 / ENSCEN 171. Introduction to Global Change: The Science Behind Sustainability

3. Three Topics Courses. Select three courses from the list below. Two courses must be 300 level or above. Students will be required to take at least two courses from different sub-topics listed below.

## Culture

- AMCULT 301. Topics in American Culture

Topic \#38-Green Indigeneity

- ASIAN 371. Natural Disasters in East Asia
- CEE 307 / ENVIRON 407. Sustainable Cities
- CLCIV 277 / ENVIRON 277 / HISTORY 277. Environmental History of the Ancient Mediterranean
- ENGLISH 317. Literature and Culture.

Topic \#33 - Green Indigeneities
Topic \#82 - Growing Up Near the Great Lakes

- ENGLISH 320. Literature and the Environment

Topic \#5 - Ecocriticism
Topic \#6 - Southern Natures: Race and Environment in the U.S. South

- ENGLISH 398. Junior Seminar in English Studies

Topic \#35 - American Literature and the Sea.
Topic \#47-Moby Dick: Allusion and Intertextuality

- ENVIRON 277 / CLCIV 277 / HISTORY 277. Environmental History of the Ancient Mediterranean
- ENVIRON 304. Topics in Culture and Environment

Topic \#16 - Growing Up Near the Great Lakes
Topic \#12 - Ecocriticism

- ENVIRON 324. Introduction to Water Law and Policy
- ENVIRON 407 / CEE 307. Sustainable Cities
- ENVIRON 410. American Environmentalism and the Frontier West
- HISTORY 240. The World Since 1492

Topic \#1 - Oceans in World History

- HISTORY 277 / CLCIV 277 / ENVIRON 277. Environmental History of the Ancient Mediterranean
- RCHUMS 334. Special Topics in the Humanities Topic \#36 - Growing Up Near the Great Lakes
- WRITING 410. Quantitative Analysis and Writing in the Disciplines Topic \#4 - Demystifying Water Data


## Economics, Policy \& Planning

- ARCH 357 / UP 357. Architecture, Sustainability and the City: Ideas, Forces and People Shaping the Built Environment
- ECON 370 / ENVIRON 375. Environmental and Resource Economics
- EHS 588 / ENVIRON 475 / NRE 475. Environmental Law
- ENVIRON 208 / ORGSTUDY 208. Business and the Natural Environment
- ENVIRON 235. Economics of Natural Resources and Environment
- ENVIRON 306. Global Water
- ENVIRON 365. International Environmental Policy
- ENVIRON 375 / ECON 370. Environmental and Resource Economics
- ENVIRON 408. Land Use Policy, Law, and the Environment
- ENVIRON 412 / PUBPOL 412. Environmental Values in Public Policy
- ENVIRON 475 / EHS 588 / NRE 475. Environmental Law
- NRE 475 / ENVIRON 475 / EHS 588. Environmental Law
- ORGSTUDY 208 / ENVIRON 208. Business and the Natural Environment
- PUBPOL 412 / ENVIRON 412. Environmental Values in Public Policy
- UP 357 / ARCH 357. Architecture, Sustainability and the City: Ideas, Forces and People Shaping the Built Environment


## Natural Sciences \& Resource Management

- AOSS 350 / EARTH 350. Atmospheric Thermodynamics
- AOSS 411 / EARTH 411. Cloud and Precipitation Processes
- AOSS 420 / NAVARCH 420 / ENSCEN 420. Environmental Ocean Dynamics
- AOSS 467 / CHEM 467 / EARTH 465 / ENSCEN 467 / ENVIRON 467. Biogeochemical Cycles
- AOSS 474 / EARTH 474. Ice Sheets, Glaciers and Climate Change
- CHEM 467 / AOSS 467 / EARTH 465 / ENSCEN 467 / ENVIRON 467. Biogeochemical Cycles
- ENVIRON 426 / CLIMATE 421 / EARTH 421. Introduction of Physical Oceanography
- EARTH 222 / ENVIRON 232. Introductory Oceanography
- EARTH 223 / ENVIRON 233. Introductory Oceanography, Laboratory
- EARTH 333 / ENVIRON 333. The Inexhaustible Seas? Marine Resources and Environmental Issues
- EARTH 350 / AOSS 350. Atmospheric Thermodynamics
- EARTH 411 / AOSS 411. Cloud and Precipitation Processes
- EARTH 417. Geology of the Great Lakes
- EARTH 421 / CLIMATE 421 / ENVIRON 426. Introduction of Physical Oceanography
- EARTH 449. Marine Geology
- EARTH 452. Paleoceanography
- EARTH 465 / AOSS 467 / CHEM 467 / ENSCEN 467 / ENVIRON 467. Biogeochemical Cycles
- EARTH 474 / AOSS 474. Ice Sheets, Glaciers and Climate Change
- EARTH 478. Geochemistry of Natural Waters
- EEB 320 / ENVIRON 311. Rivers, Lakes, and Wetlands: Introduction to Aquatic Ecosystems
- EEB 380. Oceanography: Marine Ecology
- EEB 440 / ENVIRON 422 / NRE 422. Biology of Fishes
- EEB 450. Biology of Amphibians and Reptiles
- EEB 455. Ethnobotany
- EEB 457. Algae in Freshwater Ecosystems
- EEB 476 / ENVIRON 476 / NRE 476. Ecosystem Ecology
- EEB 483. Freshwater Ecosystems: Limnology
- EEB 486. Biology and Ecology of Fish
- EEB 487 / ENVIRON 409 / NRE 409. Ecology of Fishes
- EEB 489 / ENVIRON 430 / NRE 430. Soil Ecology
- ENSCEN 420 / AOSS 420 / NAVARCH 420. Environmental Ocean Dynamics
- ENSCEN 467 / AOSS 467 / CHEM 467 / EARTH 465 / ENVIRON 467. Biogeochemical Cycles
- ENVIRON 201 / RCNSCI 202. Ecological Issues
- ENVIRON 232 / EARTH 222. Introductory Oceanography
- ENVIRON 233 / EARTH 223. Introductory Oceanography, Laboratory
- ENVIRON 311 / EEB 320. Rivers, Lakes, and Wetlands: Introduction to Aquatic Ecosystems
- ENVIRON 333 / EARTH 333. The Inexhaustible Seas? Marine Resources and Environmental Issues
- ENVIRON 409 / NRE 409 / EEB 487. Ecology of Fishes
- ENVIRON 421. Restoration Ecology
- ENVIRON 422 / NRE 422 / EEB 440 . Biology of Fishes
- ENVIRON 426 / CLIMATE 421 / EARTH 421. Introduction of Physical Oceanography
- ENVIRON 430 / NRE 430 / EEB 489. Soil Ecology
- ENVIRON 463. Topics in Environmental Natural Science Topic \# 1 - Stream Restoration
- ENVIRON 467 / AOSS 467 / CHEM 467 / EARTH 465 / ENSCEN 467. Biogeochemical Cycles
- ENVIRON 476 / EEB 476 / NRE 476. Ecosystem Ecology
- NAVARCH 420 / AOSS 420 / ENSCEN 420. Environmental Ocean Dynamics
- NRE 409 / ENVIRON 409 / EEB 487. Ecology of Fishes
- NRE 422 / ENVIRON 422 / EEB 440 . Biology of Fishes
- NRE 430 / ENVIRON 430 / EEB 489. Soil Ecology
- NRE 476 / ENVIRON 476 / EEB 476. Ecosystem Ecology
- PHYSICS 210. Energy for our Future
- RCNSCI 202 / ENVIRON 201 / RCNSCI 202. Ecological Issues


## Public Health

- AAS 409 / ANTHRCUL 408. Maternal/Child Health and Environmental Pollution in Africa
- AAS 458. Issues in Black World Studies, section titled "Business and Politics in Developing Countries"
- ANTHRCUL 408 / AAS 409. Maternal/Child Health and Environmental Pollution in Africa
- ENVIRON 310. Toxicology: The Study of Environmental Chemicals and Disease
- PUBHLTH 305. The Environment and Human Health
- PUBHLTH 350. Global Public Health: Challenges and Transformation


## Technology

- ARTDES 250. Art, Design, and the Environment
- CEE 265. Sustainable Engineering Principles
- CEE 307 / ENVIRON 407. Sustainable Cities
- CEE 365. Environmental Engineering Principles
- CEE 480. Design of Environmental Engineering Systems
- CEE 481. Aquatic Chemistry
- EARTH 477 / ENVIRON 479. Hydrogeology
- ENVIRON 321. Climate Change and Adaptation
- ENVIRON 407 / CEE 307. Sustainable Cities
- ENVIRON 479 / EARTH 477. Hydrogeology
- UP 425. Urban Systems

4. Synthetic or Capstone Experience. Student choose a practical experience synthesizing approaches and knowledge bases relevant to the issue. The practical experience can take the form of an independent study course, internship, field-oriented course or study abroad course. Students either work with a faculty advisor to complete an independent study course or internship, or they will consult with a PitE Advisor or faculty to choose a field-oriented course or study abroad experience synthesizing approaches and knowledge bases relevant to the student's interest in water.

Advising. PitE staff and faculty advisors will help students navigate the "Water and the Environment Minor."

## Center for European Studies (CES)

1080 South University Avenue, Suite 3668
(734) 764-0351 (phone)
(734) 763-4765 (fax)
www.ii.umich.edu/ces
e-mail: ces.advising@umich.edu
The Center for European Studies is a multi-disciplinary research, education, and outreach program that strengthens the understanding of modern, integrated Europe at U-M and in the United States.

Advising. Undergraduate Advisors at the International Institute are available to meet with undeclared students who would like to learn more about the program, and also with current majors and minors who would like to discuss course selection, degree requirements, major/minor releases, and other matters of concern. Appointments can be made through our online appointment calendar by clicking on: meet with an advisor. Information on all of our undergraduate programs and Walk-In Advising hours can also be found on our website: here. The International Institute's Undergraduate Advising Office is currently located at 1080 South University Avenue, Suite 2660.

## Modern European Studies Minor

The minor in Modern European Studies is open to students with any kind of academic background who wish to better understand European societies from a variety of disciplinary perspectives. After gaining a solid knowledge of European history, students can branch out in many directions: they can further explore historical processes, delve into economic problems, investigate social relations, or examine Europe's cultural achievements and conflicts, among other possibilities. The minor encourages a broad understanding of Europe, both geographically and thematically. With the European Union now extending from Portugal to the Russian borderlands, and with global processes reconfiguring Europe's relationships with the rest of the world, the minor offers a unique opportunity for students to familiarize themselves with an enormously diverse continent that is constantly re-examining its roots and discussing its future.

Constraints: Students may not use more than one course to meet the requirements of both a major and a minor. No course may be used to satisfy the requirements of more than one minor.

Prerequisites to the Minor: Fourth-term proficiency in a language of the European Union (other than English) or other European language by permission of the advisor.

Minor Program. At least 15 credits of courses from the following categories:

1. Modern European history: HISTORY 318 or 319.
2. Elective courses: Three courses chosen in consultation with, and approved by, the CES academic advisor, from one of the following tracks:
a. Politics, Economy, and Society of Europe and the EU

- One upper-level course on modern European or EU politics, society, or economics.
- Two additional social science courses on modern Europe.
b. European Arts and Culture
- One upper-level course on art, literature, or culture of modern Europe
- Two additional humanities courses on modern Europe

3. Capstone: A fourth elective course ( 3 credits), chosen at the discretion of the student and the advisor and taken during the final two academic terms of study, that offers an opportunity to synthesize what the student has learned about modern Europe. It should involve researching and writing a paper of at least 12 pages in length. Possible themes include EU expansion, colonialism / post-colonialism, economic development, migration and immigration, European identity, and European literary traditions.
At least two courses must be upper-level (300 or above). Courses must be distributed over at least three of the following fields: anthropology, economics, history, history of art, literature, music, philosophy, political science, screen arts and cultures, and sociology.

# Germanic Languages and Literatures 

3110 Modern Languages Building
812 East Washington Street
(734) 764-8018 (phone)
(734) 763-6557 (fax)
www.lsa.umich.edu/german
e-mail: german.dept@umich.edu
Germany has emerged as the strongest economy in Europe, and the State of Michigan has especially deep economic ties to Germany: Thus German is one of the most important languages for business and engineering. German is also centrally important for gaining a first-hand, fundamental knowledge of the aesthetic, philosophical, and scientific foundations of modern thought. By a wide margin, German is the most frequently required or recommended academic language.

At every level of our language program, we strive to appeal to the cognitive abilities and intellectual curiosity of our students. Our language courses focus systematically on the development of all four basic language skills (listening, speaking, reading, and writing), while emphasizing context and meaning at all levels and in all spheres of the language acquisition process. It is fundamental to our program that all language courses encourage students to explore other world-views and learn to think critically about culture.

The goals for the first two years of language study include increasing the level of proficiency in beginning and intermediate language students and meeting the needs and interests of the majority of students so that they will find the language requirement stimulating and useful. We believe that language learning is and should be enjoyable and stimulating, and we hope that our courses live up to this expectation. Our special topics courses (GERMAN 232) are meant to provide an introduction to the discourse and substance of various disciplines in German and thus become stepping stones to coursework outside of the German major proper. These special topics include courses on German politics and economics, history, music, art, anthropology, film, engineering, and mathematical and scientific German. Upon completion of the fourth-term course, students are strongly encouraged to pursue an internship or study abroad in Germany. The German department and the Center for Global and Intercultural Study (CGIS) provide extensive assistance to students interested in doing this: students who go abroad come back excited about their experience and speak excellent German.

Intermediate and advanced courses are designed both to enhance language skills and to explore central issues in all areas of German Studies. These courses are open not just to majors and minors but also to all students who meet prerequisites regardless of major area.

Students who enter the University with a background in the German language are strongly urged to continue their study of the language without interruption during their first and second years.

Placement Test and Retroactive Credit. Students with high-school credit for German who intend to complete the A.B./B.S. language requirement in German must take a placement test administered by Germanic Languages. The placement test is advisory: students may attempt a higher course than their placement indicates without departmental permission, but must obtain departmental permission to take a lower-level course than their score indicates. Students who have attained fourth-term proficiency (GERMAN 232 or the equivalent) are considered to have satisfied the language requirement and may elect more advanced courses. LSA students whose first German course at the U-M is GERMAN 232 are normally eligible for four additional retroactive credits if they complete the course with a grade of "B" or better. LSA students whose first course is at or above the 300 -level are normally eligible for 8 additional retroactive credits. For details, consult the "Guidelines for Retroactive Credits" on the LSA website.

Questions regarding placement and the placement test should be directed to Hartmut Rastalsky.

## The Max Kade German Residence Program

(734) 764-8018 (phone)
e-mail: maxkade@umich.edu
www.Isa.umich.edu/german/german/kade
The Max Kade Residence is located in North Quad. Residents of the Kade Program have the opportunity to learn and practice German in an informal setting: students at all levels are welcome. They are also able to participate in the many activities in the residence, such as film series, Kaffeestunden, and a mini-course featuring guest lectures by faculty. The Program also organizes and subsidizes trips to local cultural events, and to Berlin, Vienna, Munich, Cologne, or Hamburg over Spring Break.

The George Valenta Scholarship is available each year for an upperclass major living in the Max Kade Residence.

## German

May be elected as a departmental major

## Effective Winter 2016-12/15/2015

The objectives of the major in German are:

1. to develop facility in the use of German;
2. to provide an integrated knowledge of major German writers in various disciplines; and
3. to gain insight into all aspects of German culture.

Majoring in German provides valuable background for work in all areas of today's global economy, and in the traditional areas of application of language study, such as international relations, teaching, translating, and the tourism industry. Consequently, dual majors in German and another subject (History, Political Science, etc.) are strongly encouraged.
Information about graduate opportunities and careers specifically available to students majoring in German may be obtained from the department office.

Advising. A major in German is developed in consultation with and must be approved by Karl-Georg Federhofer (kallimz@umich.edu) or Andrew Mills (ajmills@umich.edu), the department advisors.

Appointments are scheduled online at www.Isa.umich.edu/german/undergrad/advising.

German Department faculty are also available to students during regularly scheduled office hours which are posted on the bulletin board outside 3110 Modern Languages Building.

Prerequisites to the Major. GERMAN 232, or the equivalent.
Prerequisites to Declaration. Students can declare a major at any stage during their undergraduate years.

Requirements for the Major. 30 credits beyond GERMAN 232 must include GERMAN 325 or 326 , three 300 -level courses; GERMAN 425 or 426 , three 400-level courses; and at least two additional GERMAN courses numbered GERMAN 300 or higher.

Students must earn a grade of C - or better in all required courses.
A minimum of 15 of the required 30 credits must be taken either in residence at Michigan or through a study abroad program affiliated with the University of Michigan.

For further information, contact
Karl-Georg Federhofer (kallimz@umich.edu) or
Andrew Mills (ajmills@umich.edu).
Honors Plan. In meeting the requirements stated above, students admitted to the Honors plan must include GERMAN 491 and 492 (Honors
proseminar and thesis). Completion of preliminary work is a prerequisite to acceptance in the Honors plan in German. Admission is granted to qualified students at the end of the junior year. Students must maintain a GPA of 3.7 or higher in German and an overall GPA of 3.4 or higher.

For further information, consult
Karl-Georg Federhofer (kallimz@umich.edu) or
Andrew Mills (ajmills@umich.edu).
Teaching Certificate. To secure departmental recommendation for a teaching major, students have to complete a minimum of 34 credits. For a list of the requirements, students should go to:
www.soe.umich.edu/files/secondary_german_major_current.pdf.
We strongly recommend that students enroll in GERMAN 531 (Fall). To meet the requirements for a teaching minor in German, students should complete GERMAN 325 or 326, any two courses selected from among GERMAN 381, 382, 383, 384, 385, and eight additional credits of senior work (GERMAN 425, 426 and 531 are particularly recommended).

All teaching certificate candidates should consult
Karl-Georg Federhofer (kallimz@umich.edu) or
Andrew Mills (ajmills@umich.edu).

## Dutch and Flemish Studies

Dutch Studies has been an integral part of the Department of Germanic Languages and Literatures since the early 1970s. The program offers both language and literature courses. The first- and second-year courses satisfy the language requirement. Upper-level courses have ranged from the most modern literature to medieval genres, the literature of Rembrandt's time, and Vincent van Gogh's letters or Dutch colonial literature from The East Indies. Independent studies in combination with for instance European or World History, Anthropology, South African, or Indonesian Studies are encouraged. Hovering between English and German, Dutch is easy to learn for English speakers. Tutorials in the closely-related South African language Afrikaans are available on request.
A special course is offered: "Anne Frank in Past and Present" (DUTCH 492), in which the famous diary and its impact are studied and compared to other Holocaust writings. The first-year seminar entitled "Colonialism and its Aftermath" (DUTCH 160) enhances and emphasizes the wide scope of Dutch and Flemish Studies, as the history of the low countries is examined in contacts with new worlds in East and West.

Each year in May, students of Dutch have the opportunity to acquire the internationally recognized certificate of proficiency in Dutch, on four levels.

## Scandinavian Studies

Scandinavian countries have made important contributions to Western civilization, from the Sagas of the medieval period to the pioneers of modern drama, Ibsen and Strindberg, the children's literature of Astrid Lindgren, cinema, design, and other art forms. Scandinavian thinkers have also made crucial contributions to the development of the social welfare state, biotechnology, and engineering. Scandinavian companies such as Nokia, IKEA, and ABB are a major presence in international business, and it is a little-known fact that Sweden invest a higher percentage of it GDP in research than any other country in the world, including the U.S. Sweden is the third-largest exporter of music. According to the United Nations, the Scandinavian countries rank highest in the world in quality of life, and they offer revealing comparisons with other industrial and post-industrial societies. The study of these contributions deserves to be strongly represented at a great research university such as the University of Michigan. We are proud to recall that the Swedish diplomat Raoul Wallenberg, who saved tens of thousands of Hungarian Jews during the Holocaust, was a University of Michigan alumnus.
The Scandinavian program offers courses that take the pan-Scandinavian view in literature, history, culture, society, architecture, and the arts, plus
courses that focus in depth on Swedish language and literature. Opportunities to study at the University of Uppsala, as well as Stockholm University, during a semester or year abroad program and to secure a summer internship in a Scandinavian country further enhance students' career options for graduate study, teaching, international business, or nonprofit work. Students enrolled in the fourth-term Swedish course have the opportunity to travel to Sweden as a group on a study trip over Spring Break each year.

## Turkish-German Studies

Turkish-German Studies is a new field in the humanities and social sciences that researches and analyzes issues related to Turkish-German relations in both their historic and present forms. The interdisciplinary field investigates the impact of Turkish migrants on the German cultural landscape. Rather than indicating a hybrid culture caught in between two nations, the hyphen in 'Turkish-German' serves as a point of departure for an investigation into the history of relations between Turkey and Germany (and, by extension, the East and West).

## Germanic Languages and Literatures Minors

Students wishing to pursue a minor in German Studies must develop a specific plan for its completion in consultation with Karl-Georg Federhofer or Andrew Mills, the department advisors. Appointments are scheduled online at:
www.Isa.umich.edu/german/undergrad/advising.
Students wishing to pursue a minor in Scandinavian Studies must develop a specific plan for its completion in consultation with Johanna Eriksson, johannae@umich.edu

## German Studies

Not open to student electing a major in German

## Effective Winter 2016-12/15/2015

The minor in German Studies provides students with an opportunity to gain and demonstrate competence in the German language above and beyond the level specified by the College language requirement. It also provides an opportunity for students to gain a deeper knowledge of a specific topic within the overarching discipline of German studies.
Information about graduate opportunities and careers specifically available to students minoring in German Studies may be obtained from the department office.

Prerequisites to the Minor: GERMAN 231 or equivalent, as determined by the departmental placement examination.

Requirements for the Minor: 18 credits of courses at the level of GERMAN 232 or higher are required. The 18 credits must include either GERMAN 325 or 326 , and at least four courses within the 18 credits must be taught in German. At least one of the courses must be numbered 400 or above.

Students must earn a grade of C- or better in all required courses.

## Scandinavian Studies

Prerequisites to the Minor: SCAND 234 or equivalent, as determined by the departmental placement examination.
Requirements for the Minor: At least 15 credits and five courses, to be chosen from the following categories as stated below.

1. Required Scandinavian courses: SCAND 331, 325, and 375.
2. Electives: Two courses chosen from among:

- SCAND 351, 421, 430, 442, 460, 480;
- PHIL 371;
- Appropriate (Scandinavian topic) sections of: ENGLISH 407, SAC 330, and SAC 441.


# Center for Global and Intercultural Study (CGIS) 

G155 Angell Hall
435 South State Street
(734) 764-4311 (phone)
(734) 764-3229 (fax)
www.lsa.umich.edu/cgis
e-mail: cgis@umich.edu
Pardip Bolina, Interim Director
Established in July 2009, the Center for Global and Intercultural Study (CGIS) was created to provide a wide variety of global engagement and learning opportunities to the University of Michigan community. CGIS programming serves students with diverse academic interests at sites in all regions of the world, international and domestic.

CGIS also offers administrative and academic support to departments and units across campus hoping to launch their own individualized programs.

Advising. Every day of the academic term, CGIS conducts peer-facilitated sessions, called Ready, Set...Go Global, which identify global opportunities available to all U-M students. CGIS program advisors also assist students in determining the opportunity most consistent with their academic and professional goals as well as their personal interests. Students should attend a Ready, Set...Go Global session and meet with a CGIS program advisor to better understand the different advantages of various types of CGIS-supported programming.

Financial Aid + Scholarships. Students may apply Michigan awarded financial aid to some CGIS program costs. Please contact the Office of Financial Aid for details. CGIS also offers some scholarships to student participating on CGIS programs. Consult the CGIS website for scholarship application, information, and deadlines.

Programs. CGIS staff support student participation in four different program areas.

- Global Course Connections
- Spring/Summer Language Study
- Global Intercultural Experience for Undergraduates
- Michigan Global Academic Programs


## Global Course Connections

These short-term programs offer an excellent and affordable opportunity for students interested in field-based extensions to on-campus courses. Students enroll for selected courses on campus in the winter or fall terms and then travel (2-4 weeks) with classmates to a field site where they can put into practice or experience what they have learned. Students receive an additional 1-2 credits for the projects they complete on site. Registration for the field study component requires permission from the instructor. Recent courses have taken students to observe labor practices
on the Mexican border, experience Thai culture related to their language study, and look at social conditions in contemporary South Africa. These courses are offered through their home departments. Consult the CGIS website for course details.

## Spring/Summer Language Study

These spring or summer term programs allow students to complete their third and fourth term language requirement in one intensive half term in the field. Students deepen their comfort and fluency in a non-English language through direct immersion as they live with host families and/or participate in internship/volunteer placements. These special language programs are offered during the spring/summer terms enabling students to complete their language requirement during their first year, if desired. Students register for these courses through the departments offering the language. Consult the CGIS website for course details.

## Global Intercultural Experience for Undergraduates

GIEU expands learning beyond traditional classroom boundaries through intercultural, short-term (3 or 4 week summer) service projects. Small groups of diverse students called GIEU Student Scholars are mentored by U-M faculty members and travel to culturally-rich locations in the U.S. and around the world. Projects benefit local communities and give students the opportunity to work closely with local community members. GIEU emphasizes gaining intercultural skills, and as such, students are matched with field sites after being admitted to the program. Participation involves a year-long commitment, and students receive a paid internship and academic credit. Students apply to the program in early November and are registered for UC 275 or UC 276 (in winter and fall terms) by the instructor following acceptance.

## Michigan Global Academic Programs

These programs offer global opportunities for students to study off campus during the entire academic year, spring, summer, fall or winter terms. Educational opportunities are categorized into many different types of programs, to meet a variety of student needs.

For courses not taught in English, these extended, in-depth opportunities allow students to achieve a higher degree of fluency. Please note that it is often possible to take courses in English even in non-English speaking countries. Many of the programs also have academic themes best explored on site.

LSA students earn Michigan in-residence credit for their coursework. Students apply to desired program. Following acceptance, students register for the appropriate STDABRD course.

## History

1029 Tisch Hall
435 South State Street
(734) 764-6305 (phone)
(734) 647-4881 (fax)
www.Isa.umich.edu/history
e-mail: umhistory@umich.edu

## History

Updated 9/29/2014 for Fall 2014

## May be elected as a departmental major

History is the study of the past and how we remember it. If it happened, historians deal with it - whether it happened yesterday or five thousand years ago. Far too many people imagine that history is merely the dry memorization of names and dates, but a major in history at the University of Michigan will quickly dispel that myth. If you are interested in people and how they interact with the social and natural world, then you should be interested in history. Our courses cover everything: music, politics, family life, technology, war, gender relations, science, medicine, religion, ideologies, sports, and much, much more. Contrary to yet another popular myth, history is one of the most practical, useful majors that one could select. Our students develop skills in critical thinking, writing, and thoughtful reading. Above all, we help students appreciate every aspect of life as part of a much broader and more complicated context, which not only enriches our students' lives but allows them to become sophisticated decision-makers. It is no surprise that employers, law schools, other professional schools, and graduate programs in a wide variety of fields look so favorably upon history graduates.

The history major allows students the flexibility to develop a program that meets their personal interests and needs. Distribution requirements ensure that all students will encounter a wide range of topics, and every student works one-on-one with a faculty mentor to fashion his or her own individualized focus. This combination of breadth, customization, and unparalleled mentoring ensures that the history major can meet the needs of virtually any student.

## Prerequisites to the Major. None.

Requirements for the Major. A major in History requires a total of ten history courses. Five of these courses must be taken in residence at the University of Michigan-Ann Arbor. At least five of the ten courses must be at the 300 -level or above and none can be numbered below 200. Threeand four-credit courses both count as one course. Two mini-courses can be combined in order to equal one course.

History majors with an average of 3.5 or better in their history courses are encouraged to join the National History Honor Society, Phi Alpha Theta.

For more information, go to phialphatheta.org.

## Requirements for the Major

1. Required course. Every history major must take HISTORY 202, "Doing History," during the first semester after they declare. If scheduling problems make it absolutely impossible to take the class immediately, it can be delayed with the approval of a department advisor. This course will introduce students to historical research and writing by engaging directly with a wide range of primary sources and considering the various ways they can be interpreted.
2. The Survey Sequence. The foundation of the history major is a twopart survey sequence. The Department offers a range of pre-approved sequences in various geographical, chronological, and thematic areas, but students can also develop their own pairings in consultation with a faculty mentor and with the approval of the Department's Director of Undergraduate Studies. A frequently updated list of possible pairings will be available on the History Department website. For a sequence to be approved, the two classes must have a clear and well conceptualized link, and they must fit within a broader theme.

## 3. Regional Distribution

- Students have to take at least one course in four of the following areas: North America, Latin America, Europe, the Middle East / Central Asia, Africa, Asia, and Transregional / Global.
Courses taken to satisfy the survey sequence requirement can be used to satisfy the regional distribution requirement.
- Courses will count in the Transregional / Global category if they cut across significant geographical boundaries (i.e., continents or oceans) as well as major political boundaries. Included are courses dealing with one oceanic basin, but excluded are courses dealing with multiple sites within one continent.

4. Pre-1800 Distribution. Students must take at least one course that focuses on a period prior to the year 1800. To meet this requirement, at least $75 \%$ of the course material must deal with the pre-modern era. This course can also count as one of the regional courses. Courses taken to satisfy the survey sequence requirement cannot be used to satisfy the pre-1800 requirement.
5. Junior-Senior Colloquium Requirement. Take either HISTORY 496 or HISTORY 497. Honors students fulfill this requirement by taking HISTORY 499.

A list of pre-approved regional distribution courses and pre-1800 courses will be maintained on the History Department website.

These requirements can overlap. For example, a colloquium about ancient Greece satisfies the pre-1800, European, and colloquium requirements and also counts as one of the upper-level history courses.

For the purposes of history major credit, no more than eight credits may be elected from HISTORY 395 (Independent Study).

Beyond these basic requirements, each student works with an individual faculty mentor to customize his or her program. Prior to declaring a History major, students meet with a general departmental advisor to discuss the program requirements, but upon declaring, each student selects a faculty mentor who will serve as his or her personal advisor. Departmental advisors will help students select a mentor based upon each individual's interests and needs. The mentor helps the student pick an appropriate survey sequence and select additional courses that will give coherence to the degree program. What form that coherence will take is up to the student (with the mentor's guidance). Some opt for a geographical focus (the United States, Africa, Europe, etc.), while others might prefer a more thematic approach (women's history, international or transnational history, cultural history, etc.). Still others might want to emphasize global or chronological breadth within a more diversified set of courses.

## The Honors Program

The Junior-Senior Honors Program in the Department of History is open to juniors majoring in history who have maintained at least a 3.4 grade point average overall and a 3.5 average in history courses. Applications are accepted annually in October. The usual applicant is a first-term junior for this three-term program. Admission decisions will be based on a student's academic performance, background in history, demonstrated ability to write, and recommendations by history faculty. High grade point average alone does not guarantee admission. Accepted students will be notified in November and will begin their participation in the program the following January in HISTORY 498, the Junior Honors Colloquium.

Members of the Honors Program must fulfill all the usual requirements for majoring in History. The two Honors courses they are required to take, HISTORY 498 ( 4 credits) and HISTORY 499 ( 6 credits), count toward the fulfillment of these requirements. Completion of HISTORY 499, the Senior Honors Colloquium, also satisfies the "colloquium" requirement for history major, described above. Students who complete HISTORY 498 but not HISTORY 499 must satisfy this requirement by taking either HISTORY 496/497.

## Advising

The History Department offers a three-tiered advising structure.

## Tier 1: Faculty Advisors from the History Department's Undergraduate Committee

- declaring a history major - obtaining general advice about the nature, purpose, and utility of a history degree
- recommending a faculty mentor
- approving study abroad and transfer credit
- declaring a minor in History

To make an appointment, go to www.Isa.umich.edu/history/ug.
Tier 2: The Undergraduate Program Coordinator

- obtaining general advice about the requirements for the major
- checking progress toward the major or minor
- completing the graduation checklist and release

To make an appointment, go to www.Isa.umich.edu/history/ug.

## Tier 3: Individual Faculty Mentors

- obtaining approval for a survey sequence and a major theme
- getting advice about course selection
- obtaining advice about career planning

Students generally meet with a Tier 2 advisor for help in selecting a mentor, but all subsequent advising will be done by that individual professor.

Faculty who go on leave will designate a substitute, and inform all their mentees of the temporary change.

Students must arrange appointments directly with their mentors, and are expected to do so at least once a term. It is the student's responsibility to take the initiative in setting up these meetings.

Teaching Certificate. The general requirements for a teaching certificate are described elsewhere. Students must consult the School of Education Teacher Education office, 1228 School of Education, and check their website (www.soe.umich.edu) for certification program information and general information meeting schedules.

The teaching major and minor for certification differ from the academic history major and minor. History courses required for a teaching certificate with a major in History must include HISTORY 260 and 261, one course in European history, HISTORY 396 or 397, and specific world and non-Western history courses listed on the SOE website. History electives are chosen to reach the minimum 30 credits of History.

Teaching minor requirements are the same as the teaching major with a minimum of 20 credits of History.

## Minors in History

## History Minor

Updated 4/23/15 - Effective Winter 2016
A minor in History is not open to students with any major or any other minor in the Department of History, nor to those pursuing a minor in Modern European Studies.

A minor in history is a great way to explore historical questions and issues while pursuing a major in a different field. The History minor offers a straightforward, coherent, and yet very flexible program that provides a solid introduction to the discipline, and also enhance the interpretive and analytical skills historians depend on and employers value. These skills include learning to become a consciously critical read, a concise and compelling writer, and a person who not only 'knows stuff' but who can tell other what the 'stuff' means and why it matters.

## Prerequisites to the Minor: None.

Requirements for the Minor: Five courses (at least 15 credits), to be chosen in consultation with a faculty advisor, covering at least two of the following areas: North America, Latin America, Europe, the Middle East /

Central Asia, Africa, Asia, and Transregional/Global. Two mini-courses will equal one regular course.

At least four of these five courses must be at the 200-level or above; at least two courses must be at the 300 -level or higher.

## First-Year Seminars do not count toward the minor.

AP credit: AP credits may not be used to satisfy requirements of the minor.
Conditions: Four of the five courses must be taken in-residence at the University of Michigan, Ann Arbor, or must count as in-residence credit (i.e., relevant courses taken through UM-sponsored CGIS programs abroad).

## Global History Minor

Updated 4/23/2015 - Effective Winter 2016
Updated 3/2/2016 - Effective Winter 2016

## Updated 4/11/2016 - Effective Fall 2016

A minor in Global History is not open to students with a major or any other minor in the Department of History.

The Global History minor equips students to think in global dimensions and to approach the past outside the traditional constraints of national and temporal boundaries. Global History is not simply international history and is more than transnational and comparative studies-the fundamental purpose is to approach the past outside the boxes of nations and geographic regions of the world and to emphasize questions of connectivity, mobility, and scale. A global perspective historicizes regions, migrations, capital flows, and also the presentist concept of globalization itself by revealing how people have long imagined the world across traditional boundaries.

Global and world history coursework highlights comparative analysis and connections across time and space at the largest scales. The minor will prepare students for the contemporary challenges of our "globalizing" world while providing them with the knowledge and awareness that the history and processes of globalization go back a very long time.

## Prerequisites to the Minor: None

Requirements for the Minor: A minimum of 5 courses and 15 credits, distributed as follows

1. Survey Requirement: Students must take two (but may elect the third under the "Additional Courses" category below, although none of these count for cluster purposes):

- HISTORY 238 (Zoom: A History of Everything)
- HISTORY 239 (The World Before 1492)
- HISTORY 240 (The World Since 1492)

Students may take all three and count one under "additional courses."
2. Additional Courses. Three additional courses (a minimum of 3 credits each for at least 9 credits), including two from a designated cluster, to be chosen in consultation with a faculty advisor. At least two of the three additional courses must be at the 300 -level or higher. A maximum of one can be at the 100 -level.

All courses must be from the approved list of classes that count for the Global History Minor. The designated clusters are:

- Global Power and Social Justice
- Science, Technology, Medicine, Environment
- Cultural Connections

With approval from a faculty advisor, students may create an alternative cluster.

## Cluster \#1: Global Power and Social Justice

Courses in the this cluster address projections of power, inequality, and dependency over long distances, from the premodern era through the cold war and post-9/11 worlds. Key themes involve the development of political systems, such as empires and colonies; military interventions, in many types of wars and conflicts; economic

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exchanges, including trade networks and commodity systems; and international legal history, including treaties and the development of human rights law.

This cluster is particularly relevant for students majoring in fields such as International Studies, Political Science, and Economics.

- HISTORY 227: The Rise and Fall of the British Empire
- HISTORY 230: Humanities Topics in History, sections titled "Tracking Human Rights" and "Global Cold War"
- HISTORY 241: America and Middle Eastern Wars
- HISTORY 257 / JUDAIC 257: Law in the Pre-Modern World
- HISTORY 282. History of the Economy
- HISTORY 303: Topics in History, section titled "Atlantic Slave Trade: Histories and Legacies"
- HISTORY 310 / RCSSCI 310: Globalization in History: The Making of the Modern World
- HISTORY 314 / FRENCH 345: Empire, War, and Modernity: France and the World in the $20^{\text {th }}$ Century
- HISTORY 328: Humanities Topics in History, section titled "The Great War and the Twentieth Century"
- HISTORY 363: The U.S. and the World Since 1945: Politics, Culture, and War in the American Century
- HISTORY 407: Advanced Study in Comparative and Transnational History, section titled "Gender, Sexuality, and International Human Rights Law"
- HISTORY 445: Topics in History, section titled
"Debating Capitalism"
"Why the West Rules(d) the World"
"What is Capitalism?" (TopicID \#33) (Effective Fall 2016)


## Cluster \#2: Science, Technology, Medicine, Environment

Courses in this cluster provide global and comparative perspectives on the ways in which scientific knowledge, technological and medical developments, and environmental transformations have shaped societies, reflected political power, and produced inequalities.

This cluster is particularly useful for minors whose program is supplementing a major in fields such as the biological sciences, engineering, environmental studies, and the social sciences, and for undergraduates on the pre-med and pre-public health tracks.

- HISTORY 222 / ENVIRON 221. Global Environmental History
- HISTORY 223 / ENVIRON 223 Trashed! A History of Garbage in the Modern World
- HISTORY 224 / PUBPOL 224: Global Nuclear Proliferation
- HISTORY 232: Interdisciplinary Topics in History, section titled "Mental Health in Global History"
- HISTORY 234: History of Medicine in the Western World from the $18{ }^{\text {th }}$ Century to the Present
- HISTORY 285 / RCSSCI 275: Science, Technology, Medicine and Society
- HISTORY 300 / ASTRO 300: The Beginning and the End: A History of Cosmology
- HISTORY 301 / ASTRO 301: Discovery of the Universe
- HISTORY 339 / ASIAN 365 / CLCIV 339: Doctors in the Ancient World: China, Greece, and Rome
- HISTORY 376: Epidemics: Plagues and Cultures from the Black Death to the Present
- HISTORY 379 / RCSSCI 379 / SI 379: History of Computers and the Internet


## Cluster \#3: Cultural Connections

Ideas, languages, books, religions--all move widely across space and change as they circulate. Cultural transformations and interactions along frontiers and borderlands, in port cities, and through movement across regions and continents are at the center of global and world history. The Cultural Connections cluster draws on the History Department's extensive curricular offerings in the study of world religions along with global and transregional perspectives on the history of sexuality, the family, popular culture, and everyday life, among other themes.

This cluster is particularly well suited for humanistically inclined students interested in society and culture through comparative and interactive perspectives.

- HISTORY 105: Introduction to Religion
- HISTORY 226 / AMCULT 226 / LATINOAM 226: The Latin Tinge: Latin Music in Social Context in Latin America and the U.S.
- HISTORY 229 / ANTHRCUL 226: Introduction to Historical Anthropology
- HISTORY 230: Humanities Topics in History, sections titled "The Family in the Modern World", "Religion in the Making of African America", "Angels and Demons in Early Christianity", "Introduction to Islam"
- HISTORY 243 / MENAS 243: Islamic World History
- HISTORY 248 / ASIAN 248 / RELIGION 248: Jesus Comes to Asia: Conversion and its Consequences in Asia
- HISTORY 256 / JUDAIC 265: Introduction to Jewish Law: Sources, Legal History and Legal Theory
- HISTORY 290 / JUDAIC 290 / AAPTIS 287: Jews and Muslims
- HISTORY 309: After Alexander: The Hellenistic Age in the Mediterranean and the Near East
- HISTORY 327 / WOMENSTD 327: History of Sexuality
- HISTORY 350 / HISTART 323 / HJCS 323 / JUDAIC 323 / RELIGION 324: History of Jewish Visual Culture: From Ancient Mosaics to Jew-Hop Videos
- HISTORY 375 / WOMENSTD 375: A History of Witchcraft: The 1692 Salem Trials in Historical and Cross-Cultural Perspective
- HISTORY 421 / AAS 421 / LACS 421 / RELIGION 421: Religions of the African Diaspora
- HISTORY 469: Precolonial Southeast Asia
- HISTORY 489: The History of the Roman Catholic Church, 17752005
- HISTORY 495: The World the Mongols Made

100-Level Courses (not in any cluster; maximum of one of these may be counted toward the minor)

- HISTORY 101 / INTLSTD 205: What Is History?
- HISTORY 102: A History of the Present

AP credit: AP credits may not be used to satisfy requirements of the minor.
Conditions: Four of the five courses must be taken in-residence at the University of Michigan-Ann Arbor, or must count as in-residence credit (i.e., relevant courses taken through UM-sponsored CGIS programs abroad).

## History of Law and Policy Minor

3/2/2016 - Effective Winter 2016
3/2/2016 - Effective Winter 2016 - retroactive to Su13, F15, F14

## Updated 4/11/2016 - Effective Fall 2016

The minor in History of Law and Policy is not open to students electing the minor in Law, Justice, and Social Change; or the minor in Crime and Justice; nor to students electing the major in Public Policy at the Gerald R. Ford School of Public Policy

The minor in History of Law and Policy provides a supplemental program of historically grounded study that will benefit pre-professional students who plan to attend law school or pursue graduate work or immediate careers in policy-related fields. The minor also does not draw any sharp distinction between its law and policy sides but rather emphasizes the dynamic intersections between these categories, and emphasizes the real-world consequences of the law in society and culture and to embed formal constitutional doctrine in historical context. The electives explore the intersections between law and society, the state and citizenship, the relationship between social movements and rights, matters of regulation and governance, and the categories of politics and culture, to name but a few of the recurring themes.

Prerequisites to the Minor: None.

Requirements for the Minor. A minimum of five courses and 15 credits is required. At least three of the five courses must be at the 300 -level or higher.

## Core Course. Select at least one of:

- HISTORY 235. Law and Social Justice
or
- HISTORY 315. American Constitutional History

Electives. A minimum of four courses and 12 credits selected in consultation with a history faculty advisor, selected from the list below.

The Regional Distribution requirement is satisfied by successfully completing courses in at least two world regions. A chronological, geographical, or topical focus is developed in consultation with a faculty advisor.

## Recommended capstone seminar:

- HISTORY 477. Law, History, and the Dynamics of Social Change (highly recommended but not required)


## Other HISTORY Courses in History of Law and Policy:

- HISTORY 222 / ENVIRON 221. Global Environmental History
- HISTORY 223 / ENVIRON 223. Trashed! A History of Garbage in the Modern World
- HISTORY 224 / ENVIRON 224 / PUBPOL 224. Global Nuclear Proliferation
- HISTORY 230. Humanities Topics in History, section titled "Tracking Human Rights"
- HISTORY 232. Interdisciplinary Topics in History, section titled "History of Human Rights in Latin America"
- HISTORY 256 / JUDAIC 265. Introduction to Jewish Law. Sources, Legal History and Legal Theory
- HISTORY 257 / JUDAIC 257. Ancient Law
- HISTORY 266. Twentieth-Century American Wars as Social and Personal Experience (effective Fall 2016)
- HISTORY 269 / JUDAIC 260 / RELIGION 260. Introduction to the Talmud and the Rabbis
- HISTORY 272 / AAS 262. The Modern Civil Rights Movement
- HISTORY 312 / POLSCI 362. History of European Integration
- HISTORY 322 / GERMAN 322. The Origins of Nazism
- HISTORY 324. Muslims in Contemporary Europe
- HISTORY 329. Social Science Topics in History, section titled "Crime, Punishment, and the Politics of Prison" (TopicID 24) (effective Winter 2016, retroactive to Fall 2015)
- HISTORY 335 / AMCULT 385 / LATINOAM 385. Immigration Law. Critical Approaches to Contemporary Issues
- HISTORY 345 / RCSSCI 357. History and Theory of Punishment
- HISTORY 346 / AMCULT 348. History of American Radicalism
- HISTORY 349 / LACS 349. Revolutionary Movements in Modern Latin America
- HISTORY 356 / AMCULT 331 / WOMENSTD 356. Health in America. Patterns, Experiences, and Inequalities
- HISTORY 360. September 11
- HISTORY 364. History of American Suburbia
- HISTORY 368 / AMCULT 342 / WOMENSTD 360. History of the Family in the U. S.
- HISTORY 374 / AMCULT 374. The Politics and Culture of the "Sixties"
- HISTORY 375 / WOMENSTD 375. History of Witchcraft: The 1692 Salem Trials in Historical and Cross-Cultural Perspective
- HISTORY 376. Epidemics. Plagues and Cultures from the Black Death to the Present
- HISTORY 399. Topics in History, section titled "The Politics of Civil Liberties and Civil Rights" (effective Fall 2014)
- HISTORY 407. Advanced Study in Comparative and Transnational History, section titled "Gender, Sexuality, and International Human Rights Law"
- HISTORY 411 / POLSCI 319. The Politics of Civil Liberties and Civil Rights (effective Winter 2016)
- HISTORY 415 / ASIAN 415. Chinese Legal History. Law and Society in Late Imperial and Modern China
- HISTORY 443 / AAPTIS 487. Modern Middle East History
- HISTORY 445: Topics in History, section titled "What is Capitalism?" (TopicID \#33) (Effective Fall 2016)
- HISTORY 466. Building American Empire: War, Politics, and Social Reform in the United States, 1901-1950
- HISTORY 497. History Colloquium, section titled "K-12 Education History and Policymaking" section titled "Crime, Punishment, and the Politics of Prison" (effective Winter 2016, retroactive to Summer 2013)


## Electives Cross-listed with HISTORY

- AAPTIS 487 / HISTORY 443. Modern Middle East History
- AAS 262 / HISTORY 272. The Modern Civil Rights Movement
- AMCULT 331 / HISTORY 356 / WOMENSTD 356. Health in America. Patterns, Experiences, and Inequalities
- AMCULT 342 / HISTORY 368 / WOMENSTD 360. History of the Family in the U. S.
- AMCULT 348 / HISTORY 346. History of American Radicalism
- AMCULT 374 / HISTORY 374. The Politics and Culture of the "Sixties"
- AMCULT 385 / HISTORY 335 / LATINOAM 385. Immigration Law: Critical Approaches to Contemporary Issues
- ASIAN 415 / HISTORY 415. Chinese Legal History. Law and Society in Late Imperial and Modern China
- ENVIRON 221 / HISTORY 222. Global Environmental History
- ENVIRON 223 / HISTORY 223 . Trashed! A History of Garbage in the Modern World
- ENVIRON 224 / HISTORY 224 / PUBPOL 224. Global Nuclear Proliferation
- GERMAN 322 / HISTORY 322. The Origins of Nazism
- JUDAIC 257 / HISTORY 257. Ancient Law
- JUDAIC 260 / HISTORY 269 / RELIGION 260. Introduction to the Talmud and the Rabbis
- JUDAIC 265 / HISTORY 256. Introduction to Jewish Law. Sources, Legal History and Legal Theory
- LACS 349 / HISTORY 349. Revolutionary Movements in Modern Latin America
- LATINOAM 385 / HISTORY 335 / AMCULT 385. Immigration Law. Critical Approaches to Contemporary Issues
- POLSCI 319 / HISTORY 411. The Politics of Civil Liberties and Civil Rights (effective Winter 2016)
- POLSCI 362 / HISTORY 312. History of European Integration
- PUBPOL 224 / ENVIRON 224 / HISTORY 224. Global Nuclear Proliferation
- RCSSCI 357 / HISTORY 345. History and Theory of Punishment
- RELIGION 260 / HISTORY 269 / JUDAIC 260. Introduction to the Talmud and the Rabbis
- WOMENSTD 356 / HISTORY 356 / AMCULT 331. Health in America. Patterns, Experiences, and Inequalities
- WOMENSTD 360 / HISTORY 368 / AMCULT 342. History of the Family in the U. S.
- WOMENSTD 375 / HISTORY 375. History of Witchcraft: The 1692 Salem Trials in Historical and Cross-Cultural Perspective


## Other Electives:

- INTLSTD 401. International Studies Advanced Seminar, section titled "Gender, Sexuality, and International Human Rights Law"

100-level Electives: A maximum of one 100-level course may be applied toward the requirements for the minor.

- HISTORY 102. A History of the Present
- HISTORY 103. Introduction to History in the Humanities (appropriate sections)
- HISTORY 104. Introduction to History in the Social Sciences (appropriate sections)

AP credit: AP credits may not be used to satisfy requirements of the minor.
Conditions: Four of the five courses must be taken in-residence at the University of Michigan-Ann Arbor, or must count as in-residence credit (i.e., relevant courses taken through UM-sponsored CGIS programs abroad).

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## History of Medicine and Health Minor

Updated 4/23/15 and 6/1/2015 - Effective Winter 2016

A minor in History of Medicine and Health is not open to students with a major or any other minor in the Department of History, or students taking a Minor in Science, Technology, and Society.

Why does the History Department offer a minor in the History of Medicine and Health? Because more than a recitation of names and dates, history provides insights into the issues of contemporary importance, be they the global response to Ebola or the politics of health care. Taught by the department's internationally renowned faculty in the history of medicine and health, courses in the History of Medicine and Health minor will be of interest to a wide range of students.

For students planning to attend medical school, graduate school in public health, or to pursue a broad range of related career paths in fields such as global health, nursing, medical anthropology, pharmacy, psychology, social work, and neuroscience, the minor will provide a valuable supplemental program of study. Courses will help students develop the empathy to envision past perspectives and experiences, and the ability to understand that current medical facts have changed and will continue to change.

## Prerequisites to the Minor: None

Requirements for the Minor: A minimum of 5 courses and 15 credits, distributed as follows:
A. Take one of two 4-credit survey courses:

- HISTORY 234 (History of Medicine in the Western World from the 18th Century to the Present)
or
- HISTORY 284 (Sickness and Health in Society: 1492 to the Present).

Students may take both of these courses for minor credit but only one is required.
B. Four additional courses (at least 12 credits), to be chosen in consultation with a faculty advisor. At least two of the four additional courses must be at the 300 -level or higher.

- Three of these courses must be from the approved list of courses that count for the Medicine and Health minor.
- One of these courses must be a History distribution course that is not on the approved list.


## Approved List

HISTORY 230: Humanities Topics in History, section titled "History of Psychology"
HISTORY 232: Interdisciplinary Topics in History, section titled "Mental Health in Global History"
HISTORY 285 / RCSSCI 275: Science, Technology, Medicine and Society
HISTORY 329: Social Science Topics in History, section titled "Pollution and Disease in Early Modern Europe"
HISTORY 339 / ASIAN 365 / CLCIV 339: Doctors in the Ancient World
HISTORY 233 (or 342 prior to Winter 2016): History of Sexually Transmitted Diseases from Syphilis to AIDS
HISTORY 355 / AAS 355 / ANTHRCUL 355: Health and Illness in African Worlds
HISTORY 356 / AMCULT 331: Health in America: Patterns, Experiences, and Inequalities
HISTORY 376: Epidemics: Plagues and Cultures from the Black Death to the Present
HISTORY 391: Topics in European History, section titled "Medieval Catastrophes"
HISTORY 496: History Colloquium, section titled "Medicine and Health in U.S. Culture since 1875"

HISTORY 497: History Colloquium, section titled "Medicine and Health in U.S. Culture since 1875"

AAS 355 / HISTORY 355 / ANTHRCUL 355: Health and Illness in African Worlds
ANTHRCUL 355 / HISTORY 355 / AAS 355: Health and Illness in African Worlds

ASIAN 365 / HISTORY 339 / CLCIV 339: Doctors in the Ancient World CLCIV 339 / HISTORY 339 / ASIAN 365: Doctors in the Ancient World RCSSCI 275 / HISTORY 285: Science, Technology, Medicine and Society

AP credit: AP credits may not be used to satisfy requirements of the minor.
Conditions: Four of the five courses must be taken in-residence at the University of Michigan-Ann Arbor, or must count as in-residence credit (i.e., relevant courses taken through UM-sponsored CGIS programs abroad).

## Religion Minor

Updated 4/23/2015 - Effective Winter 2016
Updated 9/29/2015 - Effective Fall 2015, Winter 2015, Fall 2014
Updated 10/12/2016 - Effective Winter 2016
Update 11/14/2015 - Effective Winter 2016
Updated 2/19/2016 - Effective Winter 2016
Update 3/18/2016 - Effective Winter 2016
Updated 3/30/2016 Effective Winter 2016
Updated 4/20/2016 - Effective Winter 2016
The Religion minor is an interdisciplinary minor housed in the History department, but is not a History minor.

We live in a world in which religion matters. Religious issues and conflicts dominate the headlines, from extraordinary acts of renewal to horrifying acts of destruction. Even in defining what religion is, and is not, proves a high-stakes challenge for institutions from the U.S. Supreme Court to the UN to local police or business owners.

The minor in Religion offers LSA students a rich and varied curriculum that provides the opportunity to explore the world's religions from antiquity to the present. Though the minor is housed in the History Department, it is designed to be a broad introduction to religion from many disciplinary angles and viewpoints.

We imagine the audience for our minor to be any LSA students interested in the phenomenon and the study of religion, whether it be from their own faith tradition, some other tradition, or the more general phenomenon of religion itself. Students interested in the humanities and social sciences, but also students of law, medicine, or business would benefit from this minor.

## Prerequisites to the Minor: None

Requirements for the Minor: A minimum of 5 courses and 15 credits, distributed as follows

1. Core Course: HISTORY 105 (Introduction to Religion).
2. Additional Courses: Four additional courses (at least 12 credits), to be chosen in consultation with a faculty advisor.

- At least two of these four courses must be at the 300 -level or higher.
- The four courses must cover at least two of the following religious traditions or philosophical approaches - Christianity, Judaism, Islam, Buddhism, Hinduism, Comparative - or another religious tradition approved by a faculty advisor.
- All four courses must be from the approved list of courses that count for the Religion minor.


## Courses Approved for the Religion Minor

## African and African American Studies

AAS 206: Issues in African Studies: African Christianities
AAS 245 / HISTORY 245: Islam in Africa (effective Fall 2015, added 3/30/2016)
AAS 267 / HISTORY 267 / AMCULT 267. Religion in the Making of African America (effective Fall 2015, added 3/30/2016)
AAS 358: Topics in Black World Studies, section titled "Urban Religion in the African Diaspora"
AAS 421 / HISTORY 421 / LACS 421 / RELIGION 421: Religions of the African Diaspora

## American Culture

AMCULT 267 / HISTORY 267 / AAS 267. Religion in the Making of African America (effective Fall 2015, added 3/30/2016)

AMCULT 270 / HISTORY 270: Religion in America
AMCULT 387 / HISTORY 387 / JUDAIC 387: History of American Jews

## Anthropology

ANTHRCUL 221 / HISTORY 271 / RELIGION 271: Religions of Latin America
ANTHRCUL 246 / RELIGION 246: Anthropology of Religion

## Asian Languages and Cultures

ASIAN 220 / RELIGION 202: Introduction to the Study of Asian Religions
ASIAN 223 / RELIGION 223: Krishna Speaks: Bhagavad-Gita
ASIAN 225 / RELIGION 225: Introduction to Hinduism
ASIAN 230 / PHIL 230 / RELIGION 230: Introduction to Buddhism
ASIAN 231 / RELIGION 231: Introduction to Tibetan Buddhism
ASIAN 234 / RELIGION 234: Buddhism and Death
ASIAN 248 / HISTORY 248 / RELIGION 248: Jesus Comes to Asia
ASIAN 272 / RELIGION 272: Introduction to the Study of Korean Religions
ASIAN 303 / RELIGION 303: Religious Military Orders of the World ASIAN 304 / HISTART 304: The Art of Yoga
ASIAN 305 / RELIGION 305: Religion and Violence in the Secular World ASIAN 306 / RELIGION 306: What is Religion?
ASIAN 307 / HISTORY 308: Eat, Pray, Love: Devotional Traditions in South Asia
ASIAN 324 / HISTORY 325 / AAPTIS 325 / RELIGION 325 /: The History of Islam in South Asia
ASIAN 325 / RELIGION 323: Zen: History, Culture, and Critique ASIAN 326: Introduction to Japanese Buddhism
ASIAN 329: Violence and Nonviolence in the Buddhist Traditions of Asia ASIAN 331 / PHIL 331 / RELIGION 331: Introduction to Indian Philosophy ASIAN 333: Sacred Collectives: Nation and Religion in South Asia ASIAN 335 / HISTART 305: Himalayas: An Aesthetic Experience
ASIAN 350 / RELIGION 351: Gods, Ghosts, and Gangsters: Popular Religion
ASIAN 430: Philosophy of the Sikh Gurus
ASIAN 464 / RELIGION 464 / HISTORY 470: From Mystic Saints to Holy Warriors: Islam in Southeast Asia
Classical Studies
CLCIV 303 / HISTORY 303 / WOMENSTD 303: Roman Women (effective Fall 2015, added 3/30/2016)
CLCIV 347 / RELIGION 347: Roman Religion from the Archaic Period to Late Antiquity
CLCIV 380 / HISTORY 381 / JUDAIC 380 / RELIGION 382: Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest CLCIV 446: Greek Religion
GREEK 307 / ACABS 307: The Synoptic Gospels: Matthew, Mark and Luke (requires two terms of Greek)

## English

ENGLISH 258 / RELIGION 258: The Bible as Literature
ENGLISH 398: Junior Seminar in English Studies, section titled "New English Literature in the Age of Chaucer"
ENGLISH 415 / WOMENSTD 414: Studies in Women and Literature: Early Women Writers
ENGLISH 469: Milton
Germanic Languages and Literatures
GERMAN 460: Europe's Islam: From Dante to Rushdie

## History

HISTORY 213 / MEMS 213: The Reformation
HISTORY 230: Humanities Topics in History, section titled "Angels and Demons in Early Christianity"
HISTORY 243 / MENAS 243: The Dawn of Islamic History
HISTORY 244 / AAPTIS 244 / HJCS 244 / JUDAIC 244 / MENAS 244. The History of the Arab-Israeli Conflict.
HISTORY 245 / AAS 245: Islam in Africa
HISTORY 248 / ASIAN 248 / RELIGION 248: Jesus Comes to Asia
HISTORY 256 / JUDAIC 265: Intro to Jewish Law
HISTORY 267 / AAS 267 / AMCULT 267. Religion in the Making of African America (effective Fall 2015, added 3/30/2016)
HISTORY 269 / JUDAIC 260 / RELIGION 260: Introduction to the Talmud and the Rabbis
HISTORY 270 / AMCULT 270: Religion in America

HISTORY 271 / RELIGION 271 / ANTHRCUL 221: Religions of Latin America
HISTORY 286 / RELIGION 286: A History of Eastern Christianity from the $4^{\text {th }}$ to the $18^{\text {th }}$ Century
HISTORY 290 / JUDAIC 290: Jews and Muslims
HISTORY 303 / CLCIV 303 / WOMENSTD 303: Roman Women (effective Fall 2015, added 3/30/2016)
HISTORY 308 / ASIAN 307: Eat, Pray, Love: Devotional Traditions in South Asia
HISTORY 324: Muslims in Contemporary Europe (Fall 2015, retroactive to Fall 2013)
HISTORY 325 / RELIGION 325 / AAPTIS 325 / ASIAN 324: The History of Islam in South Asia
HISTORY 328: Humanities Topics in History, section titled "The Bible in the 19th Century" or "Ancient Judaism: Law, Religion, History"
HISTORY 350 / JUDAIC 323 / HISTART 323 / HJCS 323 / RELIGION 324: History of Jewish Visual Culture: From Ancient Mosaics to Jew-Hop Videos
HISTORY 357: Topics in African History, section titled "Islam in Africa"
HISTORY 381 / CLCIV 380 / JUDAIC 380 / RELIGION 382: Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest
HISTORY 387 / JUDAIC 387 / AMCULT 387: History of American Jews
HISTORY 399. Topics in History, section titled "Islam and the West" [TopicID \#20]
HISTORY 421 / AAS 421 / LACS 421 / RELIGION 421: Religions of the African Diaspora
HISTORY 428 / NEAREAST 413: The Rise of Islam
HISTORY 442 / AAPTIS 461: The First Millennium of the Islamic Near East
HISTORY 445: Topics in History, section titled "American Jews \& Social Justice in the U.S."
HISTORY 470 / ASIAN 464 / RELIGION 464: From Mystic Saints to Holy Warriors: Islam in Southeast Asia

HISTORY 481: Topics in European History, section titled "Spirituality \& Madness: Religious Women"
HISTORY 487: Conversions and Christianities (effective Fall 2015, added 3/30/2016)
HISTORY 489: The History of the Roman Catholic Church 1775-2005 HISTORY 497: History Colloquium, section titled "Crusade and Jihad" MEMS 213/ HISTORY 213: The Reformation
MEMS 355 / HISTART 355: The Miraculous and the Diabolical in Late Medieval and Early Modern European Visual Culture

## History of Art

HISTART 285 / AAPTIS 285: Visual Culture Islam
HISTART 304 / ASIAN 304: The Art of Yoga
HISTART 305 / ASIAN 335: Himalayas: An Aesthetic Experience HISTART 323 / HISTORY 350 / JUDAIC 323 / HJCS 323 / RELIGION 324: History of Jewish Visual Culture: From Ancient Mosaics to JewHop Videos
HISTART 351: The Art and Poetry of Michelangelo
HISTART 355 / MEMS 355: The Miraculous and the Diabolical in Late Medieval and Early Modern European Visual Culture

## Judaic Studies

JUDAIC 205 / NEAREAST 276: What is Judaism?
JUDAIC 244 / HISTORY 244 / AAPTIS 244 / HJCS 244 / MENAS 244: The History of the Arab-Israeli Conflict. (Effective Fall 2014, retroactive to Winter 2014)
JUDAIC 260 / HISTORY 269 / RELIGION 260: Introduction to the Talmud and the Rabbis
JUDAIC 265/ HISTORY 256: Intro to Jewish Law
JUDAIC 270 / HJCS 270 / ACABS 270 / RELIGION 270: Introduction to Rabbinic Literature
JUDAIC 290 / HISTORY 290: Jews and Muslims
JUDAIC 318. Humanities Topics in Judaism, section titled "History and Religion of Ancient Judaism" [TopicID \#23]
JUDAIC 323 / HISTORY 350 / HISTART 323 / HJCS 323 / RELIGION 324: History of Jewish Visual Culture: From Ancient Mosaics to Jew-Hop Videos
JUDAIC 360: A Global History of the Jews of Spain
JUDAIC 376 / WOMENSTD 376: Women and the Bible

JUDAIC 380 / HISTORY 381 / CLCIV 380 / RELIGION 382: Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest JUDAIC 387 / HISTORY 387 / AMCULT 387: History of American Jews JUDAIC 410 / SOC 410: Sociology of the American Jewish Community JUDAIC 451 / POLSCI 350: The Politics and Culture of Modern East European Jewry
JUDAIC 468 / HJCS 478 / RELIGION 469: Jewish Mysticism
Latin American and Caribbean Studies
LACS 421 / HISTORY 421 / AAS 421 / RELIGION 421: Religions of the African Diaspora

Middle Eastern and North African Studies
MENAS 243 / HISTORY 243: The Dawn of Islamic History
MENAS 244 / HISTORY 244 / AAPTIS 244 / HJCS 244 / JUDAIC 244: The History of the Arab-Israeli Conflict. (Effective Fall 2014, retroactive to Winter 2014)

Near Eastern Studies
AAPTIS 244 / HISTORY 244 / JUDAIC 244 / HJCS 244 / MENAS 244: The History of the Arab-Israeli Conflict. (Effective Fall 2014, retroactive to Winter 2014)
AAPTIS 262 / RELIGION 204: Introduction to Islam
AAPTIS 325 / HISTORY 325 / RELIGION 325 / ASIAN 324: The History of Islam in South Asia
AAPTIS 285 / HISTART 285: Visual Culture Islam
AAPTIS 361: Jihad in History
AAPTIS 365: The Prophet Muhammad in Islam
AAPTIS 461 / HISTORY 442: The First Millennium of the Islamic Near East
AAPTIS 567: Readings in Classical Islamic Texts (requires $6{ }^{\text {th }}$-term proficiency in Arabic)
ACABS 122 / RELIGION 122: Introduction to the New Testament
ACABS 270 / JUDAIC 270 / HJCS 270 / RELIGION 270: Introduction to Rabbinic Literature
ACABS 307 / GREEK 307: The Synoptic Gospels: Matthew, Mark and Luke (requires two terms of Greek)
ACABS 323 / RELIGION 350: Christianity after the New Testament: The First Six Centuries
ACABS 592: Seminar in Ancient Civilizations and Biblical Studies
HJCS 244 / HISTORY 244 / AAPTIS 244 / JUDAIC 244 / MENAS 244: The History of the Arab-Israeli Conflict. (Effective Fall 2014, retroactive to Winter 2014)
HJCS 270 / ACABS 270 / JUDAIC 270 / RELIGION 270: Introduction to Rabbinic Literature
HJCS 323 / HISTORY 350 / HISTART 323 / JUDAIC 323 / RELIGION 324: History of Jewish Visual Culture: From Ancient Mosaics to Jew-Hop Videos
HJCS 478 / JUDAIC 468 / RELIGION 469: Jewish Mysticism
NEAREAST 200 / RELIGION 201: Introduction to World Religions: Near Eastern
NEAREAST 235 / RELIGION 121. Introduction to the Tanakh/Old Testament
NEAREAST 238 / RELIGION 280: Jesus and the Gospels
NEAREAST 240: Ancient Egypt: Religion and Culture
NEAREAST 276 / JUDAIC 205: What is Judaism?
NEAREAST 295. First Year Seminar in Near Eastern Studies, section titled "The Dead Sea Scrolls for the $21^{\text {st }}$ Century" (TopicID \#7)
NEAREAST 322 / RELIGION 363: The Qur'an and its Interpretations NEAREAST 335 / RELIGION 359. History and Religion of Ancient Judaism NEAREAST 339 / RELIGION 358. Israel Before the Exile (587 BCE): Its History \& Religion
NEAREAST 413 / HISTORY 428: The Rise of Islam
NEAREAST 421 / RELIGION 465: Islamic Mysticism
Philosophy
PHIL 230 / ASIAN 230 / RELIGION 230: Introduction to Buddhism PHIL 262 / RELIGION 262: Intro to the Philosophy of Religion
PHIL 331 / ASIAN 331 / RELIGION 331: Introduction to Indian Philosophy
PHIL 480: Philosophy of Religion

## Political Science

POLSCI 350 / JUDAIC 451: The Politics and Culture of Modern East European Jewry

## Religion

RELIGION 121 / NEAREAST 235. Introduction to the Tanakh/Old Testament
RELIGION 122 / ACABS 122: Introduction to the New Testament
RELIGION 201 / ACABS 200 / AAPTIS 200 / HJCS 200: Introduction to World Religions: Near Eastern
RELIGION 204 / AAPTIS 262: Introduction to Islam
RELIGION 220 / ASIAN 202: Introduction to the Study of Asian Religions
RELIGION 223 / ASIAN 223: Krishna Speaks: Bhagavad-Gita
RELIGION 225 / ASIAN 225: Introduction to Hinduism
RELIGION 230 / PHIL 230 / ASIAN 230: Introduction to Buddhism
RELIGION 231 / ASIAN 231: Introduction to Tibetan Buddhism
RELIGION 234 / ASIAN 234: Buddhism and Death
RELIGION 246 / ANTHRCUL 246: Anthropology of Religion
RELIGION 248 / HISTORY 248 / ASIAN 248: Jesus Comes to Asia
RELIGION 258 / ENGLISH 258: The Bible as Literature
RELIGION 262 / PHIL 262: Intro to the Philosophy of Religion
RELIGION 270 / HJCS 270 / ACABS 270 / JUDAIC 270: Introduction to Rabbinic Literature
RELIGION 271 / HISTORY 271/ ANTHRCUL 221: Religions of Latin America
RELIGION 272 / ASIAN 272: Introduction to the Study of Korean Religions
RELIGION 280 / ACABS 221: Jesus and the Gospels
RELIGION 286 / HISTORY 286: A History of Eastern Christianity from the 4th to the 18th Century
RELIGION 303 / ASIAN 303: Religious Military Orders of the World
RELIGION 305 / ASIAN 305: Religion and Violence in the Secular World
RELIGION 306 / ASIAN 306: What is Religion?
RELIGION 323 / ASIAN 325: Zen: History, Culture, and Critique
RELIGION 324/ HISTORY 350 / HISTART 323 / JUDAIC 323 / HJCS 323: History of Jewish Visual Culture: From Ancient Mosaics to JewHop Videos
RELIGION 325 / HISTORY 325 / AAPTIS 325 / ASIAN 324: The History of Islam in South Asia
RELIGION 331 / ASIAN 331 / PHIL 331: Introduction to Indian Philosophy
RELIGION 347 / CLCIV 347: Roman Religion from the Archaic Period to Late Antiquity
RELIGION 350 / ACABS 323: Christianity after the New Testament: The First Six Centuries
RELIGION 351 / ASIAN 350: Gods, Ghosts, and Gangsters: Popular Religion
RELIGION 358 / NEAREAST 339. Israel Before the Exile (587 BCE): Its History \& Religion
RELIGION 359 / NEAREAST 335. History and Religion of Ancient Judaism
RELIGION 360 / RCHUMS 365: Experiences of Atheism: A History of Skepticism and Unbelief from the Greco-Roman to the Modern Period
RELIGION 363 / AAPTIS 363: The Qur'an and its Interpretations RELIGION 382 / HISTORY 381 / CLCIV 380 / JUDAIC 380: Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest
RELIGION 421/ HISTORY 421 / AAS 421 / LACS 421: Religions of the African Diaspora
RELIGION 455 / SOC 455: Religion and Society
RELIGION 464 / ASIAN 464 / HISTORY 470: From Mystic Saints to Holy Warriors: Islam in Southeast Asia
RELIGION 465 / AAPTIS 465: Islamic Mysticism
RELIGION 469 / HJCS 478 / JUDAIC 468: Jewish Mysticism

## Residential College

RCHUMS 365 / RELIGION 360: Experiences of Atheism: A History of Skepticism and Unbelief from the Greco-Roman to the Modern Period

## Sociology

SOC 410 / JUDAIC 410: Sociology of the American Jewish Community
SOC 455 / RELIGION 455: Religion and Society
SOC 490 / REEES 490 / WOMENSTD 492: Women and Islam: A Sociological Perspective
Women's Studies
WOMENSTD 303 / HISTORY 303 / CLCIV 303: Roman Women (effective Fall 2015, added 3/30/2016)

WOMENSTD 376 / JUDAIC 376: Women and the Bible
WOMENSTD 414 / ENGLISH 415: Studies in Women and Literature: Early Women Writers
WOMENSTD 492 / SOC 490 / REEES 490: Women and Islam: A Sociological Perspective

AP credit: AP credits may not be used to satisfy requirements of the minor.
Conditions: Four of the five courses must be taken in-residence at the University of Michigan-Ann Arbor, or must count as in-residence credit (i.e., relevant courses taken through UM-sponsored CGIS programs abroad).

## Minor in Medieval and Early Modern Studies (MEMS)

The minor in MEMS is designed to provide a basic, interdisciplinary familiarity with the pre-modern world. The minor fosters geographic and cross-cultural breadth, but also allows students to integrate their interdisciplinary studies with a defined historical, geographical, or topical focus planned with the department advisor. Possibilities include premodern cultural areas (Africa, the Americas, Asia, Europe, the Middle East) or focused thematic subjects (e.g., material culture; women and gender; science, technology, and medicine; Jewish studies; religion and philosophy; music, theatre and performance; colonialism).

Prerequisite to the Minor: none
Requirements for the Minor: 15 credit hours (and five courses), including at least two upper-division courses, in the medieval and early modern
periods, chosen in consultation with the MEMS minor advisor. These courses must include:

1. Geographic area courses. Select one course from two of these five areas:
a. African cultures
b. American cultures
c. Asian cultures
d. European cultures
e. Middle Eastern cultures
2. Disciplinary courses. Select one course from three of these four disciplines:
a. historical studies
b. art historical or archaeological studies
c. language or literary studies
d. musicological studies

A single course may count toward both geographic and disciplinary distribution requirements. With the approval of the minor advisor, students whose major includes a medieval and early modern studies course in one of these disciplinary categories may substitute one course from a discipline different from that of the major.

Students wishing to pursue a minor in Medieval and Early Modern Studies must develop a specific plan for its completion in consultation with the MEMS advisor. To schedule an appointment,

## History of Art

110 Tappan Hall
855 South University Avenue
(734) 764-5400 (phone)
(734) 647-4121 (fax)
www.lsa.umich.edu/histart
History of Art examines the wide range of things that humanity has made and looked at and endowed with meaning - from the imposing facade of an imperial palace, to the colorful glory of stained glass or oil painting, to an artist's intimate sketches. The discipline encompasses the study of painting, sculpture, the graphic media, and architecture, as well as an extensive variety of visual forms produced for purposes that run far afield of the traditional territory of "art" itself (advertising, say, or ritual and ceremony, or popular entertainment).

Students become conversant with the world's cultures and develop skills in visual analysis in order to understand how images, objects and built environments communicate. They also learn to employ a broad selection of interpretive methodologies. Through careful work with original sources and a wide-ranging study of comparative cultures, our students learn to consider how art objects were understood in their own time and place, and how they continue to function in the contemporary world. In doing so, history of art students become acute observers and interpreters of the visual environment.

A major in History of Art provides an excellent general foundation for work in a range of careers which rely on visual literacy as well as training in the humanities. Graduates of our program have pursued careers not only in university teaching and research, museums, galleries, auction houses, but also in arts administration, art therapy, design, advertising, criticism, journalism, publishing, libraries, computer and digital technology, and historical preservation.

Organized visits to museums in Cleveland, Detroit, Toledo, and other nearby collections are an integral part of the department's academic program.

The History of Art Website. For further information about the curriculum, student resources, faculty and staff, departmental events, and Helicon (the undergraduate art history association), please consult the History of Art website:
www.Isa.umich.edu/histart/

## History of Art

May be elected as a departmental major

## Effective Winter 2016 Updated 1/29/2016

A major in the History of Art is developed in consultation with a History of Art advisor. Appointments are scheduled through the departmental website:
www.Isa.umich.edu/histart/undergraduate/academicadvising.
Majors must consult with an advisor at least once a year.
Prerequisite to the Major. Any course below the 300 level, except for HISTART 194 and 299. Students are encouraged - but not required - to choose from among HISTART 100, 101, 102, or 103. The prerequisite requirement can also be met through the Advanced Placement Examination (AP) in Art History with the approval of a History of Art advisor.

Requirements for the Major. At least 24 credits in History of Art and 6 cognate credits.

The 24 credits in History of Art must include:

- a 3-credit seminar at the 300 level or higher.
- a total of 12 credits (including the seminar) at the 300 level or higher.
- 12 additional credits at the 200 level or higher.
- completion of the History of Art Distribution Requirements.

Distribution Requirements. There are two kinds of distribution requirements, one focusing on historical time periods and the other on different regions of the globe. The former familiarizes students with cultural practices associated with different historical moments, and the latter with a wide range of national and regional traditions. Majors are required to select 200-level or higher courses that correspond to at least three of the four time periods and three of the five regions listed below. Since each course counts towards one time period and one region, the distribution requirements can be satisfied with as few as three courses.

```
Time Periods
    Ancient
    Medieval
    Early Modern
    Modern and Contemporary
Regions
    A. The Middle East (includes Western and Central Asia and North
        Africa)
    B. Sub-Saharan Africa
    C. Asia (includes China, Japan, India, South and Southeast Asia, and
        the Pacific)
    D. Europe and the U. S.
    E. Latin America and the Caribbean
```

Cognate Requirements. The 6 cognate credits (two courses) must include:

- One studio course (minimum 3 credits) at the 100 level or higher. This course may be taken at the School of Art \& Design, the Residential College, or the Taubman College of Architecture and Urban Planning, and must be approved by an advisor.
- An additional advisor-approved course (minimum 3 credits) to be selected from a discipline related to a student's particular interest in art history.

Residence Requirement. 15 of the required 30 elective credits must be taken in residence at Michigan or at off-campus sites directed by Michigan faculty. Courses directed to major requirements by exception can count toward the major residency requirement.

Honors Plan. To qualify for the History of Art Honors Plan, a student must have an overall GPA of at least 3.4 and a GPA of at least 3.5 in the major. Honors students in History of Art enroll in HISTART 498 and 499 during the fall and winter terms of the senior year, and are required to write a senior Honors thesis.

## History of Art Minor

A minor in History of Art is not open to students with a major in History of Art.

The History of Art minor offers students an introduction to the discipline's approach to humanistic study of the things that cultures around the world have made, looked at, and endowed with meaning. It will sharpen students' skills in visual and historical analysis and interpretation.

A minor in the History of Art is developed in consultation with a History of Art advisor. Appointments are scheduled through the departmental website:
www.lsa.umich.edu/histart/undergraduate/academicadvising
Minors must consult with an advisor at least once a year .

## Prerequisites to the Minor. None

Requirements for the Minor. At least 15 credits (or five courses) in the History of Art. The selected courses must satisfy the following requirements :

100-level Survey Course: A student must complete a 100-level survey course (HISTART 100, 101, 102, or 103). This requirement may be satisfied
through the Advanced Placement Examination (AP) in Art History with the approval of a History of Art advisor.

Electives: A minimum of 2 History of Art courses ( 6 credits) at the 300 level or higher, one of which must be a seminar. The remaining credits required to complete the minor must be at the 200 level or higher.

Distribution Requirements: There are two kinds of distribution requirements, one focusing on historical time periods and the other on different regions of the globe. The former familiarizes students with cultural practices associated with different historical moments, and the latter with a wide range of national and regional traditions. Minors in the History of Art are required to select 200-level or higher courses that correspond to at least two of the four time periods and two of the five regions listed below. Since each course counts towards one time period and one region, the distribution requirements can be satisfied with as few as two courses.

## Time Periods

1. Ancient
2. Medieval
3. Early Modern
4. Modern and Contemporary

## Regions

A. The Middle East (includes Western and Central Asia and North Africa)
B. Sub-Saharan Africa
C. Asia (includes China, Japan, India, South and Southeast Asia, and the Pacific)
D. Europe and the U. S.
E. Latin America and the Caribbean

# Honors Program 

1330 Mason Hall
419 South State Street
(734) 764-6274 (phone)
(734) 763-6553 (fax)
www.lsa.umich.edu/honors
e-mail: ask.honors@umich.edu
The College, recognizing its special responsibility to students with superior ability, has established a four-year program to provide opportunities for greater depth of study throughout the undergraduate years. Michigan Honors is a four year program. In each term of the first and second years, students elect two Honors courses among the total of four courses normally comprising their schedules. In the junior year students are admitted to an Honors plan ("major") from among approximately forty departments and programs in the College. Students may also choose to pursue Honors in the Liberal Arts.

Among the features of the Honors Program are special Honors courses and Honors sections in regular courses, opportunities to participate in the research projects of faculty members, or in individual research, facultystudent seminars, and special academic advising.

## Honors Admission

Students are admitted to the Honors Program by invitation of the Director, though inquiries are welcomed from any highly motivated student. Approximately $10 \%$ of incoming first-year students are invited into the program, but continuance is based on academic accomplishment. Students may jointly enroll in Honors and other LSA programs, such as the Residential College, the Comprehensive Studies Program, or other MLCs, or in LSA/Honors and another school, such as Music or Engineering.

Honors Admissions considers a number of factors when reviewing students: the high school GPA; the difficulty of the curriculum; teacher and counselor recommendations; the student's intellectual interests, enthusiasms, and goals; achievement test scores, SAT and ACT scores, and the student's essay. The Honors student body is diverse, with a range of backgrounds, scores, and grades. Above all, we look for evidence of exceptional intellectual engagement and energy.

Students who are not invited to participate in the fall of their first year may request admission for the winter of the first year or the fall of the second year. This should be done shortly after grades for at least one semester's work have been reported and prior to the beginning of a new term so that, if admitted, they can enroll in the appropriate Honors courses. Only students with distinguished academic performance in a full set of challenging classes are admitted at the second-year level.

## Honors Housing

Honors Housing is open to all students who are admitted to the Honors Program, but no student is required to live there. Honors Housing allows students to live near others who are taking some of the same classes, and promotes intellectual interchange and a feeling of community. At the same time, students have access to all of the facilities in the residence hall and can participate in its many programs and activities. Honors RAs run a number of programs throughout the year to promote community. Information about Honors Housing is sent to all admitted students.

## Honors Advising

Perhaps the most valuable aspect of the Honors Program that students consistently mention is the high quality of academic advising they receive from the directors, the entire Honors staff, faculty, and peer advisors. Advising helps students make informed decisions. These decisions range from election of courses to choosing a major, from setting up an independent study to choosing a graduate or professional school, from going abroad to focusing on potential careers. This kind of ongoing dialogue assures that the individual student comes first. Students also profit from discussions with Honors department advisors.

## Honors Courses

The Honors Program believes that challenging work, including research opportunities, should be available to superior students from the onset of their college education. Several types of Honors courses are offered for first and second year students:

- courses offered by various departments intended only for Honors students
- sections of regular courses for Honors students
- courses sponsored by the Honors Program.

The Honors Core forms the foundation for an Honors education at U-M. Designed specifically for Honors students by innovative faculty the Honors Core Curriculum provides rigorous, wide-reaching introductory courses across the three academic divisions in LSA: the Natural Sciences (NS), the Social Sciences (SS), and the Humanities (HU). The Honors Core builds on the fine tradition of our historic Great Books course, which remains a Core Humanities course. The Core extends to other areas the many strengths of Great Books: foundational content, critical analysis, excellent instruction in writing, and social bonding. The Core is also integrative by providing opportunities for interaction between students and faculty in its various courses through electronic media, virtual meetings, and occasional symposia. Because Honors students take Core courses in both first and second years, they have added opportunities to form study groups and friendships more broadly across the Program. Honors students are required to elect three Core courses in their first two years, one Core course in each LSA division. Core courses that are available in any given semester are listed in the Course Guide.

Small seminars (HONORS 250, 251, and 252) enable students to discuss matters of intellectual substance with a senior faculty member on a variety of topics. These seminars enroll a maximum of 15 students.

Some upper level courses also count as Honors courses for first and second year students and many courses may be converted to Honors courses with the agreement of the professor and the Honors Program.

No course elected Pass/Fail will receive the Honors notation on the transcript or be counted as an "Honors" course for the Sophomore Honors Award.

## Independent Study and Research

Underlying all the coursework in Honors is the firm belief that students should take learning outside the classroom and engage in an independent study research project (for credit) under the direction of a faculty member. The Honors Program strongly encourages qualified and able students to do independent study or research. These options allow students to concentrate a considerable amount of time and effort in an area of particular interest, to develop intellectual relationships with members of the faculty and research staff, and to make more informed decisions about the Honors thesis and perhaps even long-range goals. Students are encouraged to look for a research placement when they have had adequate preparation to make their participation useful to the project and interesting for them. Honors academic advisors will be happy to talk with students about strategies for finding a project and a mentor.

Honors research tutorials are available in any term by permission of the Honors Office. First-year students and sophomores elect HONORS 291 and 292 and may serve as research assistants for faculty researchers, receive instruction in research methods, or participate in some phase of University or individual research. Comparable courses are available for juniors (HONORS 390) and seniors (HONORS 490).

The Undergraduate Research Opportunity Program (UROP) is another avenue through which to find a research placement. Some departments (for example, chemistry and psychology) maintain lists of available research projects. Many of our students find research work by directly contacting faculty whose areas of specialization interest them.

## First and Second Year (Underclass) Honors

General guidelines for underclass Honors students, if they are to remain in good standing in the Honors Program, are based on standards developed during the Program's history. They are designed to provide a sound base for the undergraduate experience and to allow students to acquire knowledge, develop analytic skills, exercise creative abilities and critical faculties of mind.

The basic four requirements for an underclass Honors student are:

- an average of two Honors courses per term for the four full terms of underclass Honors
- a course load of 14-18 credit hours
- an overall grade point average (GPA) of 3.4 or better
- the Texts and Ideas requirement.


## Junior/Senior (Upperclass) Honors

Almost all departments and interdisciplinary programs offer Honors majors. At the beginning of the third year, students may apply to a departmental Honors Plan. Students who meet departmental criteria are eligible to apply whether or not they have previously been in the Honors Program. Admission of upperclass students is determined by LSA departments and programs.

Students who are accepted into an Honors major program automatically become LSA Honors students.

Honors majors are described under the relevant departmental listings. Candidates for graduation with Honors must perform very well in courses and also demonstrate ability in original thesis work, and, in some majors, pass a comprehensive examination.

Many departments require their Honors majors to register for special seminars and independent study research courses. During the senior year, Honors majors carry out research and write a thesis under the direction of a faculty mentor. With only a few exceptions, graduation with Honors requires the completion of a Senior Honors thesis.

After an evaluation of the thesis and the overall academic record, Honors department advisors recommend that students graduate with an Honors degree.

The department will then send one of four possible recommendations to the Honors Office: "No Honors," "Honors," "High Honors," or "Highest Honors." No Honors is given for work that does not meet departmental standards, and for students with GPAs under 3.4 ("No Honors" is not noted on the transcript or diploma). The other three will be posted on the final transcript and diploma. Honors majors are described under the relevant departmental listings under Majors \& Minors.

Students may also petition the Honors Program for approval of an Honors Individual Major Program (HIMP). Information about the Honors Individual Major Program is available in 1330 Mason Hall.

## Senior Thesis

During the senior year, Honors majors carry out research and write a thesis under the direction of a faculty mentor. With only a few exceptions, such as Math and Computer Science, graduation with Honors requires the completion of a Senior Honors thesis. This consists of detailed, original research in a student's chosen field. The thesis is normally completed during the senior year. Length and format requirements vary by department. Thesis research and writing is normally done under the direction of a professor who shares the student's areas of interest.

Many departments require their Honors majors to register for special seminars and independent study research courses. Other departments do not have these courses, so their students can choose to enroll in HONORS 490. Since thesis research and writing most often extends beyond one term, the course may be assigned a " Y " grade for the term or terms prior to completion. This simply means "extended course" or "work in progress." At the completion of the thesis, one letter grade will be assigned for all the terms involved. Unlike an "I" (for an incomplete), the "Y" does not remain on the record.

After an evaluation of the thesis and the overall academic record, Honors department advisors recommend that students graduate with Honors. Deadlines and procedures for evaluating senior theses vary by department. Some departments have a committee that evaluates all theses, whereas others are based primarily on the judgment of the student's advisor and the Departmental Honors advisor.

The Department will then send one of four possible recommendations to the Honors Office: "No Honors," "Honors," "High Honors," or "Highest Honors." No Honors is given for work that does not meet departmental standards, and for students with GPAs under 3.4 ("No Honors" is not noted on the transcript or diploma). The Honors Academic Board will accept petitions from departments requesting exceptions to the above minimum GPA requirements if there is compelling evidence that an Honors student's final GPA does not adequately represent the student's record of outstanding academic achievement. The other three recommendations ("Honors," "High Honors," "Highest Honors") will be posted on the final transcript and diploma. These are separate from the Distinction awards, which are also posted on graduates' diplomas and transcripts. Levels of Distinction are awarded on the basis of the student's final cumulative GPA.

Thesis Grants. All seniors are eligible to apply for senior thesis and travel grants.

## Honors Thesis Intent Form for the Upper-Level Writing Requirement.

 Honors students have the option of using their senior theses to satisfy the Upper-Level Writing Requirement. A Sweetland Center for Writing Thesis Intent Form must be filled out by the student and the thesis advisor. An Honors Director will then approve the request, and it will be forwarded to the Sweetland Center for Writing for processing. This form should be completed within the first couple of weeks of the term the student plans to finish the thesis. Completion of the requirement hinges on satisfactory completion of the thesis. The form is available in the Honors Office or is downloadable from the Honors website.
## Honors in the Liberal Arts

Honors in the Liberal Arts (HLA) provides an alternative to the traditional Honors plan as a means to earn an Honors degree. The degree is intended for Honors students who have been academically successful during the first and sophomore years and who wish to explore and develop deep interests across major boundaries through especially advanced work primarily outside the major. This work may be elected either in addition to an Honors plan or to supplement a non-Honors plan. The courses proposed for the HLA must represent areas or aspects of a central theme which span the curricula of several departments or programs. Only one HLA course may come from any of the student's major(s) or minor(s). HLA proposals will reflect the unique academic interests of each individual student. Students who make this choice will graduate with Honors in the Liberal Arts. It is possible for students to complete both Honors in the Liberal Arts and Honors plan degrees if they complete a sufficiently rich and challenging curriculum outside the area of major in the third and fourth years.

## Requirements for Honors in the Liberal Arts

1. Completion of the Honors Program requirements in the first two years: eight (8) Honors courses, including two (2) "Literature and Texts" courses.
2. Submission of a proposal and list of potential courses to the Honors Academic Board before the end of the junior year. Students should consult with an advisor while preparing their proposal.
3. Five (5) HLA courses, each carrying departmental graduate credits (a minimum of 15 credits), to be selected in consultation with an Honors advisor. Four (4) must come from outside the student's major and minor.
4. Students will submit a portfolio of work completed in their HLA courses to the Honors Program in the term they plan to graduate. This work will be evaluated by a committee, which will include faculty, to ensure that the academic program is sufficiently rigorous and includes written expression of a caliber that will warrant awarding the HLA.
5. An overall GPA of 3.5 .

# Individual Major Program (IMP) 

1255 Angell Hall
435 South State Street
(734) 764-0332 (phone)
(734) 764-2772 (fax)
www.lsa.umich.edu/IMP
e-mail: individual.major.program@umich.edu
Tyrone Stewart, Ph.D.
IMP Advisor

## May be approved as a special major

The Individual Major (IMP) is an option for innovative and thoughtful students who wish to undertake a rigorous program of study within the College of LSA that is not available either in an existing departmental major or interdepartmental program. IMPs are interdisciplinary and reflect the liberal arts perspective of LSA. The IMP encourages diversity and flexibility, but all IMPs must have an identifiable academic focus and unifying theme. As with other majors, IMPs must stress development of skills to think critically, to understand and evaluate knowledge, and to develop ideas.

Students are encouraged to apply for an IMP during their sophomore year. No more than half the proposed courses for the major can be completed and/or currently elected at the time the IMP application is submitted. Applications from students in their senior year will not be accepted.

Recent IMPs have included Community Studies, Computers and Cultural Animation, International Development, Studies in Religion, Science and Society, Ethics, Human Rights, Perspectives on Death and Dying, Urban Studies, Global Health, and Social Justice.

Since an IMP leads to an A.B. or B.S. degree, students must meet A.B./B.S. requirements (first-year writing, second language, race and ethnicity, and quantitative reasoning requirements, and an area distribution plan). Students may complete the upper-level writing requirement by electing any course approved for that purpose but are urged to seek courses relevant to their major.

Students with an IMP may elect a Double Major provided the IMP courses are not used as part of the second major or for area distribution. Only one course from an IMP may be used toward completing the requirements of a minor. A maximum of six non-LSA credits may be included in an IMP. Courses in departments from which students have 12 or more major credits may not be used to meet the distribution requirement.

Students interested in developing an IMP must meet with the IMP advisor to discuss goals, academic options, and procedures. After this initial
discussion, a formal application may be submitted. This application must include:
(1). an intellectual statement containing a coherent rationale for the proposed program;
(2). a comprehensive curriculum of at least 34 upper-level credits;
(3). an unofficial transcript; and
(4). a letter of recommendation from two faculty members from two LSA departments offering courses in the student's defined major. These faculty should have discussed the proposed program with the student and support the proposal.

The completed application is reviewed by the Committee on Interdisciplinary Studies, a committee composed of LSA faculty members and a representative of the Newnan Academic Advising Center. The committee bases its decision on whether the proposed program ensures a coherent course of study comparable to that in other College majors.

When an IMP has been approved, the student may proceed with the program. If it becomes necessary or desirable to modify an IMP, the student must consult the IMP advisor.

## IMP Requirements

In addition to completing 34 upper-level credits, IMP students also are required to:

1. include a senior seminar (UC 455) in their curriculum (these credits can count towards the 34 required credits); and
2. complete a Senior Project

Under the supervision of the IMP advisor and at least one sponsoring faculty member, the student will take the initiative to propose, design, and execute a Senior Project that showcases the outcome of their Individual Major. During the fall of their senior year, IMP students are required to submit a formal proposal that outlines the intent and direction of their Senior Project. This proposal would need to have support from at least one faculty member. The Senior Project would be due prior to the end of the winter academic term of their senior year. More detailed guidelines for the Senior Project may be obtained from the IMP Advisor.
Advising. Appointments with the IMP advisor, Tyrone Stewart, are scheduled at the Newnan LSA Academic Advising Center, 1255 Angell Hall. IMP applications are available at the IMP website and when completed should be returned to 1255 Angell Hall.

Honors Individual Major Program (HIMP). The Honors IMP is intended for exceptional students who wish to undertake a liberal arts program of study not currently available in an existing departmental major or program. HIMPs are interdepartmental or interdisciplinary in character and include courses from a variety of sources. While the HIMP encourages diversity and flexibility, each HIMP must have an identifiable academic focus within LSA, an appropriate disciplinary base, and unifying theme, and culminate in the writing of an Honors thesis. An HIMP should not be a specialization within an already existing major. It should include an adequate number of prerequisite courses.

Since HIMPs require an unusual level of intellectual competence and maturity, an overall GPA of 3.5 and, in most cases, a 3.7 in courses related to the HIMP subject are required for admission to the program. The Honors Academic Board reviews all proposals. Graduation with "Honors," "High Honors," or "Highest Honors" is granted upon recommendation of the thesis advisor and readers.

Honors Advising. Students interested in submitting an HIMP should schedule an appointment with Dr. D.L. Wessel Walker, Associate Director of the Honors Program, to discuss goals and procedures. A formal prospectus, developed in consultation with appropriate faculty advisor, is then submitted for review and approval by the Honors Academic Board.

Residential College Individual Major Program (RCIMP). The Residential College offers the opportunity to formulate an individualized major to RC students unable to find an existing degree program within the Residential College, or in the College of Literature, Science and the Arts, which meets their specific academic needs and interests. Students wishing to pursue this option must have a good idea of what they want to achieve, consult
with RC faculty and (where appropriate) other U-M faculty, and develop a carefully thought out academic plan of study.

Note: Students who wish to declare an individualized major are strongly advised to do so before the end of their sophomore year. Under exceptional circumstances an individualized major may be approved as late as during the junior year, but in no cases during the senior year.

RC Advising. Students interested in this option should start by discussing the matter with the head of the RC Individual Major Program (IMP), whose name may be obtained at the RC Academic Services Office in 134 Tyler, East Quad. With the assistance of the IMP coordinator, the student will need to identify one or two faculty members - at least one of whom is on the RC faculty - willing to serve as her/his department advisor(s). The department advisor(s) will help the student formulate an appropriate
academic plan of study, and that plan must be approved by the advisor(s) and by the IMP coordinator before the student can formally declare the individualized major. After the major is declared, the student must continue to consult with her/his advisor(s) at least once a term before registering for courses in the following term; and completion of the major must be certified by an advisor who is a member of the RC faculty.

# Informatics 

311 West Hall
1085 South University
(734) 615-3789 (phone)
(734) 763-4676 (fax)
www.Isa.umich.edu/informatics/
email: informatics@umich.edu
May be elected as an interdepartmental major administered by the Department of Statistics

## What is Informatics?

Informatics is the study of human and computer information processing systems from a socio-technical perspective. Michigan's unique interdisciplinary approach to this growing field of research and teaching emphasizes a solid grounding in contemporary computer programming, mathematics, and statistics, combined with study of the ethical and social science aspects of complex information systems. Experts in the field help design new information technology tools informed by scientific, business, and cultural contexts.

Informatics is where the technical accomplishments of computer science, mathematics, and statistics become embedded in the ways we interact, imagine, and produce in richer and more thoughtful ways. Students will obtain software development skills and learn a formal framework for making inferences from experimental and observational data, focusing on the manner and purpose in which people interact with information and information systems.

The major in Informatics is appropriate for students with varied interests and a range of background knowledge in information systems engineering, information analysis, and/or the use of information processing in biological, societal and emerging application areas. Students who complete the major are equipped to participate fully in important emerging areas such as bioinformatics, information analysis, large-scale information management, and human-centered information systems design. In addition, depending on which track a student selects, he or she develops the intellectual skills to analyze enormous quantities of information (Data Mining \& Information Analysis Track); or to apply information technology to large-scale, cutting-edge problems in the life sciences (Life Science Informatics Track).

Students majoring in Informatics have many opportunities available to them after graduation. The major provides excellent preparation for jobs in the IT industry as product managers, human factors engineers, usability specialists, information analysts in sciences and science related industries, and designers working with large software development teams. Recruiters visiting the university frequently are seeking students with the ideals and skill sets that are provided by this program. Combined with work in specific knowledge domains, from nursing to economics, graduates of Michigan's Informatics major are vital in leading organizations to harness emerging technologies. The deep understanding of the connections between information technology, data analysis, and organizations and society is also excellent background for students seeking to enter law school, business school, medical school, or schools of public policy. And, depending on the track they complete, students are well prepared for graduate study in many fields, including statistics, computer science, information, law, medicine, public health, and natural and social sciences.

## A. Data Mining \& Information Analysis Track

The collection, analysis, and visualization of complex data play critical roles in research, business, and government. Powerful tools from applied statistics, mathematics, and computational science can be used to uncover the meaning behind complex data sets. The Data Mining and Information Analysis track integrates these disciplines to provide students with practical skills and a theoretical basis for approaching challenging data analysis problems. Students in this track learn how to develop and test models for making predictions, to search through large collections of data for rare and unexpected patterns, and to characterize the degree of certainty associated with discoveries made in the course of data analysis.

Skills and knowledge acquired in this track are increasingly important in the job market and are highly relevant for a number of graduate school programs.

## B. Life Science Informatics Track

Using artificial information systems, scientists have made great progress in identifying core components of organisms and ecosystems and are beginning to better understand how these components behave and interact with each other. In fact, biology has become an information science, as computational techniques have become an important means to develop and evaluate biological hypotheses. Informatics is used from basic biological research-studying how patterns of gene expression differ across various cell types-to the practice of medicine, where informatics is used to compare treatments, to identify social correlates of health, and to evaluate possible changes in health policy. The Life Science Informatics track prepares students for careers and advanced study in a number of information-related fields in the life sciences, as well as medical school and other areas of graduate study.

Advising. The academic program coordinator and members of the Faculty Steering Committee that designed the major share responsibility for major advising. Students who are interested in the Informatics major should consult with an academic advisor in the Newnan LSA Academic Advising Center during their freshman year and are strongly encouraged to meet with a department advisor early in their academic career. To make an appointment with a department advisor, please contact informatics@umich.edu.
Field of major and GPA calculation. For purposes of calculating grade point average, the term "field of the major" means the following:

1. All STATS courses.
2. All courses used to meet requirements for the major.
3. All mandatory prerequisites for the major.

Informatics majors may not use any STATS courses toward the Area Distribution requirement.

Note. It is not necessary to complete all prerequisite courses prior to declaring an Informatics major. Minimum grade for all prerequisite courses is a C or better.

## Prerequisites to Core Courses:

1. SI 110 / UC 110 with a C or better;
2. MATH 115 with a C or better;
3. EECS 182 / SI 182 or EECS 183 with a C or better;
4. STATS 250 with a C or better.

## Prerequisite to Declaration. MATH 115, STATS 250, and EECS 182 or 183.

Major. A minimum of 12 courses and a minimum of 40 credits.

1. Core: EECS 203, EECS 282 or 280*, STATS 403
*If a student takes both EECS 282 and 280, EECS 280 will be treated as an elective.
2. Subplans: Completion of one of the following tracks:
a. Data Mining \& Information Analysis track
i. MATH 217
ii. STATS 406
iii. STATS 415
iv. One of the following Quantitative courses:

- MATH 425, 471, 561, 562, 571
- STATS 425, 500
- IOE 310, 510, 511, 512
v. Electives*: 8 credits must be elected at the 300 -level or higher.
b. Life Science Informatics track
i. BIOINF 527
ii. One of the following Life Sciences courses:

1. BIOLOGY 305
2. MCDB 310
iii. Two of the following Quantitative/Computational courses:
3. EECS $376,382,485$
4. STATS $401,449,470$
5. BIOSTAT 449
iv. Electives*: 12-14 credits; 4 credits must be elected at the 300 level or higher.
6. Electives: Additional Informatics electives to bring total credits for the major to 40 credits. The number of electives required for each track varies, depending on the number of required core courses in the track. Informatics majors are allowed to select their electives from one of the following lists of courses, depending on their chosen track. Students who wish to use an elective that is not on this list should consult their track advisor before taking the course.

## Informatics Pre-Approved Electives

Students may chose electives for their declared track from the following pre-approved lists of electives without consultation of the track advisor.

Note: Only one elective course in a track indicated with "*" can be taken for elective credit.

## Data Mining \& Information Analysis

BIOINF 463/MATH 463/BIOPHYS 463 Math Modeling in Biology
BIOINF 527* Introduction to Bioinformatics \& Computational Biology
BIOINF 545*/STATS 545*/BIOSTAT 646* Molecular Genetic and Epigenetic Data
BIOINF 547/MATH 547/STATS 547 Probabilistic Modeling in Bioinformatics
BIOINF 551*/BIOLCHEM 551*/CHEM 551*/BIOMEDE 551*/PATH 551* Proteome Informatics
BIOLCHEM 551*/BIOINF 551*/CHEM 551*/BIOMEDE 551*/PATH 551* Proteome Informatics
BIOMEDE 551*/BIOLCHEM 551*/BIOINF 551*/CHEM 551*/PATH 551* Proteome Informatics
BIOPHYS 463/MATH 463/BIOINF 463 Math Modeling in Biology
BIOSTAT 449/STATS 449 Topics in Biostatistics
BIOSTAT 646*/BIOINF 545*/STATS 545* Molecular Genetic and Epigenetic Data
CHEM 551*/BIOLCHEM 551*/BIOINF 551*/BIOMEDE 551*/PATH 551* Proteome Informatics
CMPLXSYS 510*/MATH 550* Introduction to Adaptive Systems
EECS 281 Data Structures and Algorithms
EECS 376 Foundations of Computer Science
EECS 382 Internet-scale Computing
EECS 476 Theory of Internet Applications
EECS 477 Introduction to Algorithms
EECS 481 Software Engineering
EECS 484 Database Management Systems
EECS 485 Web Database and Information Systems
EECS 487 Interactive Computer Graphics
EECS 489 Computer Networks
EECS 492 Introduction to Artificial Intelligence
EECS 493 User Interface Development
HONORS 352. Honors Introduction to Research in the Natural Sciences, section titled "Cyberscience"
IOE 510*/MATH 561*/OMS 518* Linear Programming I
IOE 511*/MATH 562* Continuous Optimization Methods
IOE 512* Dynamic Programming
MATH 416 Theory of Algorithms
MATH 425/STATS 425 Introduction to Probability
MATH 433 Introduction to Differential Geometry
MATH 451 Advanced Calculus I
MATH 462 Mathematical Models
MATH 463/BIOINF 463/BIOPHYS 463 Math Modeling in Biology
MATH 471 Introduction to Numerical Methods
MATH 525/STATS 525 Probability Theory
MATH 526/STATS 526 Discrete State Stochastic Processes
MATH 547/BIOINF 547/STATS 547 Probabilistic Modeling in Bioinformatics

MATH 548/STATS 548 Computations in Probabilistic Modeling in Bioinformatics
MATH 550*/CMPLXSYS 510* Introduction to Adaptive Systems
MATH 561*/IOE 510*/OMS 518* Linear Programming I
MATH 562*/IOE 511* Continuous Optimization Methods
MATH 571 Numerical Methods for Scientific Computing I
MCDB 408 Genomic Biology
OMS 518*/IOE 510*/MATH 561* Linear Programming I
PATH 551*/BIOLCHEM 551*/BIOINF 551*/CHEM 551*/BIOMEDE 551* Proteome Informatics
SI 301* Models of Social Information Processing
SI 422* Evaluation of Systems and Services
SI 508 Networks: Theory and Application
SI 572* Database Design
SI 583* Recommender Systems
SI 631* Practical I Engagement Workshop: Content Management Systems
SI 679* Aggregation and Prediction Markets
SI 683* Reputation Systems
SI 689* Computer-Supported Cooperative Work
STATS 401 Applied Statistical Methods II
STATS 408 Statistical Principles for Problem Solving: A Systems Approach
STATS 425/MATH 425 Introduction to Probability
STATS 426 Introduction to Theoretical Statistics
STATS 430 Applied Probability
STATS 449/BIOSTAT 449 Topics in Biostatistics
STATS 470 Introduction to the Design of Experiments
STATS 480 Survey Sampling Techniques
STATS 500 Applied Statistics I
STATS 525/MATH 525 Probability Theory
STATS 526/MATH 526 Discrete State Stochastic Processes
STATS 545*/BIOINF 545*/BIOSTAT 646* Molecular Genetic and Epigenetic Data
STATS 547/MATH 547/BIOINF 547 Probabilistic Modeling in Bioinformatics
STATS 548/MATH 548 Computations in Probabilistic Modeling in Bioinformatics

## Life Science Informatics

BIOINF 463/MATH 463/BIOPHYS 463 Math Modeling in Biology
BIOINF 545/STATS 545/BIOSTAT 646 Molecular Genetic and Epigenetic Data
BIOINF 547/MATH 547/STATS 547 Probabilistic Modeling in Bioinformatics
BIOINF 551/BIOLCHEM 551/CHEM 551/BIOMEDE 551/PATH 551 Proteome Informatics
BIOLCHEM 551/CHEM 551/BIOINF 551/BIOMEDE 551/PATH 551 Proteome Informatics
BIOMEDE 551/BIOLCHEM 551/CHEM 551/BIOINF 551/PATH 551 Proteome Informatics
BIOPHYS 463/MATH 463/BIOINF 463 Math Modeling in Biology
BIOSTAT 449 /STATS 449 Topics in Biostatistics
BIOSTAT 646/BIOINF 545/STATS 545 Molecular Genetic and Epigenetic Data
CHEM 551/BIOLCHEM 551/BIOINF 551/BIOMEDE 551/PATH 551 Proteome Informatics
CMPLXSYS 510/MATH 550 Introduction to Adaptive Systems
EEB 485* Population and Community Ecology
EECS 281 Data Structures and Algorithms
EECS 376 Foundations of Computer Science
EECS 382 Internet-scale Computing
EECS 476 Theory of Internet Applications
EECS 477 Introduction to Algorithms
EECS 481 Software Engineering
EECS 484 Database Management Systems
EECS 485 Web Database and Information Systems
EECS 487 Interactive Computer Graphics
EECS 489 Computer Networks
EECS 492 Introduction to Artificial Intelligence
EECS 493 User Interface Development
HONORS 352. Honors Introduction to Research in the Natural Sciences, section titled "Cyberscience"
MATH 416 Theory of Algorithms

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MATH 425/STATS 425 Introduction to Probability
MATH 451 Advanced Calculus I
MATH 462 Mathematical Models
MATH 463/BIOINF 463/BIOPHYS 463 Math Modeling in Biology
MATH 471 Introduction to Numerical Methods
MATH 525/STATS 525 Probability Theory
MATH 526 Discrete State Stochastic Processes
MATH 547/BIOINF 547/STATS 547 Probabilistic Modeling in Bioinformatics
MATH 548/STATS 548 Computations in Probabilistic Modeling in Bioinformatics
MATH 550/CMPLXSYS 510 Introduction to Adaptive Systems
MATH 550/CMPLXSYS 510 Introduction to Adaptive Systems
MCDB 408 Genomic Biology
MCDB 411 Protein Structure and Function
PATH 551/BIOLCHEM 551/CHEM 551/BIOINF 551/BIOMEDE 551 Proteome Informatics
SI 301* Models of Social Information Processing
SI 422* Evaluation of Systems and Services SI 508 Networks: Theory and Application
SI 572 Database Design
SI 631* Practical I Engagement Workshop: Content Management Systems
SI 689* Computer-Supported Cooperative Work
STATS 401 Applied Statistical Methods II
STATS 406 Introduction to Statistical Computing
STATS 408 Statistical Principles for Problem Solving: A Systems Approach
STATS 415 Data Mining
STATS 425/MATH 425 Introduction to Probability
STATS 426 Introduction to Theoretical Statistics
STATS 430 Applied Probability
STATS 449/BIOSTAT 449 Topics in Biostatistics

STATS 470 Introduction to the Design of Experiments
STATS 480 Survey Sampling Techniques
STATS 500 Applied Statistics I
STATS 525/MATH 525 Probability Theory
STATS 526/MATH 526 Discrete State Stochastic Processes
STATS 545/BIOINF 545/BIOSTAT 646 Molecular Genetic and Epigenetic Data
STATS 547/MATH 547/BIOINF 547 Probabilistic Modeling in Bioinformatics
STATS 548/MATH 548 Computations in Probabilistic Modeling in Bioinformatics

Honors Plan. Students interested in doing original research in informatics are encouraged to consider the Informatics Honors Plan. The Honors plan is open to all Informatics majors who have achieved both a GPA in the major and an overall GPA of 3.4 or better. At least one year prior to graduation, interested students should identify a member of the U-M faculty with informatics expertise to serve as their faculty advisor. Together with that person, the student prepares a 2-3 paragraph summary of the proposed thesis project, which is submitted together with the Honors Plan Application to the Informatics Program Coordinator for review by department advisors. The student completes the thesis work in the senior year, while enrolling in 3-4 credits of independent study (such as EECS 499, MATH 399, SI 491, STATS 489, HONORS 390, or HONORS 490). At least six weeks before the last day of classes in the term in which the student will complete the independent study and thesis, an electronic copy of the final Honors thesis is submitted to the Informatics program coordinator. The faculty advisor then solicits comments on the completed thesis from an independent reader, and the student presents the work in a public forum.

## School of Information

School of Information
3360 North Quad
105 South State Street
(734) 763-2285 (phone)
(734) 615-3587 (fax)
www.si.umich.edu
e-mail: umsi.undergrad@umich.edu
The School of Information will launch a Bachelor of Science in Information program in Fall 2014 (students will apply starting Fall 2013). Students apply to the program during their sophomore year and are admitted to the School of Information for their final two years. Undergraduates wishing further information about course offerings and degree requirements should contact the School of Information.

The School of Information offers an accelerated program for exceptional undergraduates at the University of Michigan. The program enables students in the Department of Linguistics to complete both a bachelor's degree and the two-year Master of Science in Information (MSI) degree in five years of study. The School of Information will select candidates for this program during their junior year. The A.B./B.S. degree is normally awarded at the end of the senior year (the first year of study in the School of Information) and the MSI degree after completion of its requirements (normally after a second year of graduate study).

The program is described in on the LSA website. Undergraduates wishing further information about course offerings and degree requirements should contact the School of Information.

The School of Information is also a participating unit in the interdepartmental Informatics major listed under "Informatics."

## Innovate Blue

1074, 1st floor, Shapiro Library
919 South University Ave
(734) 763-8617 (phone)
e-mail: innovateblue@umich.edu
web: innovateblue.umich.edu
Innovate Blue unifies the University of Michigan innovation and entrepreneurship ecosystem, a web of experience-based curricula, mentorship, university units, and student-led organizations that enables Wolverines to turn their dreams into action. At Innovate Blue we support both individual creativity and multidisciplinary teams in tackling the world's most pressing challenges and opportunities, taking full advantage of an academic and experiential space that promotes safe risk-taking and advances entrepreneurial innovation.

Entrepreneurial education is focused on equipping students to "Be the Difference" - to innovate and develop ideas and to put these ideas into action, typically as part of a team effort. It is therefore a truly multidisciplinary activity that includes teachings from a variety of disciplines, such as anthropology, business, engineering and psychology, and focuses at its core on an approach that values immersive experiences.

Advising. All students wishing to declare either PIE or the Minor should contact innovateblue@umich.edu to schedule an appointment with an advisor.

## Minor in Entrepreneurship

## Course list update 11/15/2015 - Fall 2015 and Winter 2016

A minor in Entrepreneurship in not open to those electing the Program in Entrepreneurship supplemental studies

Having completed the minor, students should expect to:
A. Encompass a creative vision of the social, cultural, and economic landscape of the present and future
B. Have an ability to identify problems as opportunities and to develop creative and innovative solutions through invention or translation across categorical boundaries
C. Possess a skill in developing and coordinating a structure that will produce an audience or market for the solutions
D. Have confidence to take risks in order to function as an active agent in one's own life and as a citizen of the world

## Prerequisite to the Minor. None

Prerequisite to Declaration: Sophomore standing or above
Requirements for the Minor. A minimum of 15 credits of courses

1. Core:
A. ES 212. Entrepreneurial Business Basics
or
UC 270. University Courses Special Topics, section titled "Entrepreneurial Business Basics"
B. UC 270. University Courses Special Topics, section titled " Entrepreneurial Creativity"
2. Electives: minimum 3 credits selected from an approved list.

Electives present students with an opportunity to explore disciplinary areas in more academic depth related to their entrepreneurial interest.

ARCH 506 - Launching Design Practices
ARTDES 314-Change by Design
BA 201/ENTR 390 - Business Entrepreneurship in Thought \& Action
BCOM 329 - Social Media and the Changing Nature of Business Communications
DESCI 501- Analytical Product Design
ECON 490 - Economics of Entrepreneurship
EECS 441 - Mobile App Development for Entrepreneurs
EECS/ENGR 410 - Patent Fundamentals for Engineers

ENGR 520 - Entrepreneurial Business Fundamentals
ENGR 521 - CleanTech Entrepreneurship
ENGR/CHE 405 - Problem Solving, Troubleshooting, Entrepreneurship,
Intrapreneurship, and Making the Transition to the Workplace
ENGR/EECS 406 - High Tech Entrepreneurship
ENTR 390 - Leading Innovation Through Social Entrepreneurship
ENTR 407 - Entrepreneurship Hour
ENTR 408 - Patent Law
ENTR 409 - Venture Business Development
ENTR 417 - Entrepreneurship Hour Discussion Section
ENTR 490.002 - Finding Your Venture
ENTR 490.003 - Entrepreneurial Marketing
ENTR 490.004/.005 - Design Prototyping
ENTR 490.006/.007 - Working With Wood
ENTR 490.008/.009 - Working With Metal
ENTR 490.012 - Urban Entrepreneurship
ES 250 - Introduction to Entrepreneurship
ES 395 - Entrepreneurship Management
ES 427 - Family Business
ES 444 - Introduction to Microfinance
ES 569/451 - Managing the Growth of New Ventures
FIN 329 - Entrepreneurial Finance
IOE 422 - Entrepreneurship
MECHENG 499 - Front-End Design
MKT 322 - Digital Marketing
MKT/ES 425 - New Product and Innovation Management
MO 463 - Creativity at Work
ORGSTUDY 201 -Leadership and Collaboration
ORGSTUDY 202 - Practicum in Leadership and Collaboration
PSYCH 443 - Creativity
PSYCH 487 - Negotiations
PSYCH 487 - Startups and Upstarts: Psychology of Entrepreneurship and Intrapreneurship
SI 622 - Needs Assessment and Usability Evaluation
SI 663 - Entrepreneurship in the Information Industry
SW 305 - Theories and Practice for Community Actin and Social Change
THTREMUS 324 - Global Community Practicum
THTREMUS 385 - Performing Arts Management
THTREMUS 245 - Introduction to Stage Management
UARTS 250 - Creative Process
WOMENSTD 350 -Nonprofit Management, Community Engagement, and Feminist Practice
WOMENSTD 443 - Pedagogy of Empowerment: Activism in Race, Gender and Health
3. Practicum Experience. The third and final part of the requirement for a Minor in Entrepreneurship is a minimum of 6 credits of an immersive, experiential learning opportunity. Key to this practical experience is a strong focus on:
a. the identification and opportunity recognition and also
b. implementation and execution of the idea for a relatively large external audience.

Students must receive credit for both

- ENTR 411: Entrepreneurship Practicum, and
- ENTR 490: Advanced Entrepreneurship Practicum


## Program in Entrepreneurship (PIE) Supplemental Studies

The supplemental studies in Program in Entrepreneurship in not open to those electing the Entrepreneurship minor

The primary purpose of the Program in Entrepreneurship (PIE) is to give students who are not able to commit to the full Minor in Entrepreneurship a formal academic program structure through which they can acquire
fundamental entrepreneurial knowledge. The new Program in Entrepreneurship will focus on social sciences, specifically entrepreneurial creativity, and include a wide breadth of electives reflecting the breadths of entrepreneurial interests for our students focused on a wide range of entrepreneurial activities from social entrepreneurship, technology startups to design and arts-focused entrepreneurial activities.

## Prerequisite to the Supplemental Studies. None

Prerequisite to Declaration: sophomore standing or above
Requirements for the Supplemental Studies. A minimum of 9 credits of courses

1. Core:
A. ES 212. Entrepreneurial Business Basics
or
UC 270. University Courses Special Topics, section titled
"Entrepreneurial Business Basics"
B. UC 270. University Courses Special Topics, section titled " Entrepreneurial Creativity"
2. Electives: minimum 3 credits selected from an approved list. This presents students with an opportunity to explore disciplinary areas in more academic depth related to their entrepreneurial interest.

## Institute for the Humanities

1111 Thayer Academic Building
202 South Thayer Street
(734) 936-3518 (phone)
(734) 763-5507 (fax)
www.lsa.umich.edu/humanities
e-mail: humin@umich.edu

The Institute for the Humanities is a center for innovative, collaborative study in the humanities and arts. Each year the Institute provides fellowships for Michigan faculty, students, and visiting scholars who work on interdisciplinary projects. The Institute also offers a wide array of public and scholarly events including weekly brown bag talks, public lectures, conferences, art exhibits, and performances. Courses are offered at the discretion of faculty and visiting scholars, in their fields of expertise, and will vary from term to term.

## The Program on Intergroup Relations (IGR)

1214 South University Avenue, $2^{\text {nd }}$ Floor, Suite B
(734) 936-1875 (phone)
(734) 647-4133 (fax)
www.igr.umich.edu
The Program on Intergroup Relations (IGR) is a social justice education program on the University of Michigan's Ann Arbor campus. As a joint venture of the College of Literature, Science, and Arts and the Division of Student Affairs, IGR works proactively to promote understanding of intergroup relations inside and outside of the classroom. Multidisciplinary courses offered by IGR are distinguished by their experiential focus, teaching philosophy, and incorporation of dialogical models of communication. On this site you will find information on academic and cocurricular initiatives, program history and philosophy, and resources related to social justice education.

The Mark Chesler Library Collection on Intergroup Relations is home to over 1200 books, videos, journals, and other materials covering a wide range of subjects related to social diversity and social justice. These materials are useful for conducting independent research, designing dialogue activities, enhancing curricular content or simply broadening horizons in many areas of interest. Topics found within the resource center include intercultural communication, social identity, multicultural education, facilitation techniques, social justice issues, intergroup relations, and many more. All students, faculty, and staff on campus are invited to use these resources, located in the IGR office, 1214 South University, 2nd Floor.

The Library of The Program on Intergroup Relations is named in honor of Mark Chesler, Professor of Sociology Emeritus, who helped create IGR and whose professional and personal life exemplifies its mission "to pursue social justice through education".

## The Intergroup Relations Course Sequence:

The course sequence in Intergroup Relations is designed for students with special interests in social diversity and social justice. Intergroup Relations courses offer experience in both analyzing and understanding issues of diversity and justice, and building practical skills to deal with these issues in the "real world."

Students may find this sequence useful in preparing for careers in social work, law, medicine, clinical psychology, education, business, and other diverse workplaces. Students may also use this sequence to enter graduate programs in social justice, become community organizers, or engage in other professions directly relevant to social action. Additionally, students study this sequence not merely for professional reasons, but also to refine and actualize their own values as individuals and community members.

For more information on the IGR Course Sequence, please contact The Program on Intergroup Relations. The following courses listed in the sequence below are examples of applicable Intergroup Relations courses and are recommended, but not required.

## Intergroup Dialogues (3 credits)

UC 122/PSYCH 122/SOC 122.
If possible, PSYCH 122/SOC 122/UC 122 should be completed by the first semester of the sophomore year. A second dialogue, on a different topic, may be taken for two additional credits.
Examples of topics offered in recent semesters include: Race \& Ethnicity; Gender; Sexual Orientation; Religion; Socio-Economic Class and International Students/U.S. Students.

## Foundations of Intergroup Relations (3 credits)

UC 218/SOC 218 or PSYCH 218 (section titled "Foundations of Intergroup Relations")
This introductory course will examine identity development, intergroup and intercultural relations from a social justice framework, and challenge us to think critically and creatively about social justice and worldviews. This
course will also examine the history of various social identity groups and the theory behind how social identity groups form, intergroup conflict and coalition building. We will also explore how people develop an understanding of their own social identity group membership, how bias develops (prejudice, stereotyping, discrimination, and oppression), how groups are impacted by privilege and power dynamics, and how to develop advocacy for groups to which one does not belong.

## Training and Practicum in Intergroup Dialogue Facilitation (7 credits)

UC 320/PSYCH 310/SOC 320: Training Processes for Intergroup Dialogue Facilitation. (This course should be completed by the end of the junior year, and must be completed by the first semester of the senior year.) (3 credits)
Designed to provide the foundational skills and knowledge necessary to facilitate multicultural group interactions, the Program on Intergroup Relations' facilitator training course develops basic group facilitation skills through theoretical and experiential learning on topics such as group dynamics, conflict intervention, intergroup communication, and community building. Students will engage in discussions, activities, and readings focused on prejudice, stereotyping, privilege, oppression, social identity, group development

UC 321/PSYCH 311/SOC 321: Practicum in Intergroup Dialogue Facilitation. (This course is usually taken the academic term after PSYCH 310/SOC $320 /$ UC 320 is completed.) ( 4 credits)
Intergroup dialogue facilitators are trained undergraduate students who lead a group of peers through a semester of intergroup dialogue. Facilitators are trained in dialogic communication, group building, conflict surfacing and de-escalation, and social justice education. They work in pairs to facilitate dialogue, not simply as teachers, but also as learners with dialogue participants. Recent trainees have facilitated intergroup dialogues with topics such as Race and Ethnicity, Gender, Socio-economic Class, International and U.S., Religion, Sexual Orientation, Arab/Jewish, Ableism, and White Racial Identity..

## Conflict and Coexistence

UC 375/SOC 375/PSYCH 312. Intergroup Conflict and Coexistence: Religion, Ethnicity, and Culture (3 credits)

Conflict is an inherent part of human nature, individual relationships and thus society. There are, however, important, successful and often underreported examples of coexistence between groups that historically have been in conflict. this course will examine examples of social conflict based on religion, ethnicity and culture, and examine interdisciplinary theories that help to understand the nature of such conflict (i.e., social identity, limited resources, psychological, neurological, communication, anthropology). We will review current coalition building, and coexistence work among various religious, ethnic and cultural groups, as well as in higher education, community programs and NGOs (i.e., Oasis of Peace, Slifka Program, UN Difficult Dialogues, Peace Studies Program, etc.). Conflict as a constructive tools for social change will be examined, with an eye toward increasing capacity for coexistence.

## Capstone Course: Advanced Intergroup Relations (3 credits)

 UC 470This course, offered periodically, will focus on social justice and social change in the United States and on individual participants' own values, skills and future plans. By their senior year, many UM students committed to social change have managed to find places where they can learn about such work or even engage in it with allies on campus or the local community. But what about after graduation? This course seeks to address this question and consider social change and social justice in the real world.
The course will explore alternative meanings of social justice, theories and strategies of social change, roles of change agents in traditional career environs, the costs and benefits of careers of social activism, including opportunities for career choices in these arenas and the assessment of
personal skills and resources, discussions with local social justice advocates and organizational representatives, and practice in multicultural teamwork and coalition building.

## Minor in Intergroup Relations Education <br> Effective Fall 2015 9/30/2015

Intergroup education is a growing area of study focused on intergroup contact across social identities, the examination of inequality and conflict, and how groups build coalitions in the face of power inequities. More than ever, it is crucial for students to become competent national and global citizens, prepared to understand this nation's history and to work across social divisions and conflict toward a more just and peaceful world. This minor intends to build on over 60 years of intergroup relations theory and research, through the use of engaged and interactive pedagogies to help students gain academic knowledge and apply this knowledge to the promotion of positive intergroup relations and civic leadership. Students will learn about theory, research and praxis by gaining knowledge and skills, and by linking concepts to skills. More specifically, the minor focuses on multiple issues in intergroup relations, such as social identity, prejudice and discrimination, inequalities of opportunity and power, and leadership in social justice-oriented change. Additionally, there is an emphasis on engaged pedagogy and utilizing process to complement the intergroup content.

The IGR education minor emphasizes building skills that can translate across many disciplines or work-life foci. The IGR education minor develops skills for understanding social inequality within societal systems and for working alongside community members to address social inequality wherever our students work or live and

## Goals of the Minor

- Develop an increased awareness of oneself as an individual and as a member of a social identity group.
a. Examine theories of social identity development.
b. Locate oneself in systems of historic and contemporary advantage and disadvantage.
c. Understand basic intergroup concepts (e.g., social inequality and social justice, prejudice and discrimination, privilege and oppression) and use them to discuss and analyze complex issues addressed throughout the minor.
d. Examine the impact of social identity group membership in a variety of settings.
e. Explore racial, class and gender groups' histories and their commonalities and differences
f. Understand the complexities of intersectionality as a meta-theory and a source of multiple identities.

Courses: UC 122 / SOC 122/ PSYCH 122; UC 218/ SOC 218/ PSYCH 218; UC 320 / SOC 320 / PSYCH 310; UC 421
Research Practicums: UC 325, PSYCH 326, or SOC 394

- Identify the role that culture and societal institutions play in patterns of disadvantage/oppression and advantage/entitlement that occur on the basis of race, ethnicity, gender, and other social identities.
a. Examine how societal norms shape our worldviews and how we understand and communicate with those around us.
b. Understand how social systems (e.g., colleges, corporations, nonprofit organizations, communities) reflect broader historic and contemporary patterns of advantage/disadvantage.
c. Explore how theories of social and human capital explain patterns of inequality.
d. Understand the ways in which social groups' histories are reflected in students' personal narratives of their social identity group memberships.

Courses: UC 218 / SOC 218 or PSYCH 218; UC 320 / SOC 320 / PSYCH 310; UC 321 / SOC 321/ PSYCH 311; UC 421

- Develop effective skills in inquiry, communication, conflict exploration, small group dynamics and leadership.
a. Prepare students in the skills required for democratic leadership in communities and a multicultural society/ global world.
b. Prepare students to apply their knowledge of intergroup education in a variety of settings: dialogue facilitation, community outreach, research laboratories, and workplace situations.
c. Understand theories and research about small group dynamics and develop skills in working with issues of difference and inequality in such settings.
d. Translate educational research into pedagogical practice and self and other inquiry/learning designs.
e. Understand and practice how to deal with interpersonal and intergroup conflict in productive and peaceful ways.

Courses: UC 122 / SOC 122/ PSYCH 122; UC 320 / SOC 320 / PSYCH 310; UC 321/ SOC 321 / PSYCH 311; UC 421
Research Practicum: UC 325, PSYCH 326, or SOC 394; UC 471 / SOC 471 / PSYCH 411

## - Explore theories and historic examples of social change

a. Increase understanding of the ways in which people and groups have organized and acted in pursuit of social equality and justice and the ways in which counter-efforts have reacted and proceeded.
b. Explore the role of social justice-oriented advocacy and coalition building in both one's daily life and career goals.
c. Analyze historic efforts at intergroup relationship-building and boundary-crossing and their meaning for one's personal individual behaviors.
d. Identify social movements and personal actions that contribute to the creation of socially just communities.
Courses: UC 122 / SOC 122 / PSYCH 122; UC 321 / SOC 321 / PSYCH 311;
UC 421 ; UC 471 / SOC 471 / PSYCH 411
This minor offers students opportunities to explore social identities in the context of understanding social inequality and to become critical thinkers and creative and adaptive problem-solvers. The minor is primarily for students in the social sciences and humanities who want to integrate engaged learning pedagogy with an applied emphasis into their major coursework areas such as sociology, psychology, political science, languages, international studies, history, and organizational studies. The minor will be attractive to students who are considering graduate education in professional schools, for example, public health, education, law, public policy, social work, and who would like to build capacity for understanding inequality and working across difference. Michigan students will be more prepared for professional practice by incorporating intergroup education that complements their liberal arts education. Finally, while the minor is primarily for these specific groups of majors, we believe all students will benefit from the courses in the proposed minor.

The minor is intentionally progressive, and builds on the foundational knowledge of intergroup relations, social identity development, and inequality/justice to an increasingly complex understanding and ability to analyze and act in ways that further positive intellectual, intergroup and civic leadership. Students who are interested in developing facilitative leadership skills, with an emphasis on understanding group dynamics, intercultural communication, social identity awareness and leading groups will be particularly interested in the Facilitative Leadership track. This is primarily a course-based training ground. Students who are interested in deepening their analytical skills through the research process or by studying intergroup issues in campus communities will be most interested in the Campus Communities and Research track. This is the examination of intergroup issues in out-of-class and applied research settings.
Advising. IGR has a tiered advising system where students initially meet with peer advisors who provide guidance and advising. If questions persist or cannot be answered by the peer advising team, the program directors will meet with students as needed.

The IGR program assistant will help with administrative tasks such as formally declaring students and verifying when students complete the minor.

Prerequisites to the Minor: None

Requirements for the Minor. A minimum of 19 credits, from the following categories as stated: (effective Fall 2015, retroactive to Winter 2015)
I. Foundation Core Courses. Elect both:
A. UC 122/ PSYCH 122/ SOC 122: Intergroup Dialogues
B. UC 218 / SOC 218: Foundations of Intergroup Relations or
PSYCH 218: Sophomore Seminar in Psychology as a Social Science (section titled "Foundations of Intergroup Relations")

The two courses provide the foundational theory and pedagogy of the minor. Intergroup dialogues give students the beginning tools to work across difference. They learn introductory social science concepts about inequality and experience conflict by working across difference. The Foundations of Intergroup Relations course gives students a solid overview of historical and contemporary structures of inequality, and examines the theory behind how social identity groups form, and how bias develops (prejudice, stereotyping, and discrimination). These two courses also explore how people develop an understanding of their own social identity group membership, how groups are impacted by privilege and power dynamics, and how to develop advocacy for groups to which one does not belong.
II. Praxis Core Courses emphasize praxis, the engagement of theory with practice and reflection. Choose one of the following tracks:
A. The Facilitative Leadership Track (7 credits) prepares students to lead others in addressing the demographic and democratic challenges posed by inequality. The practice focus occurs in the classroom, where students lead others in intergroup dialogue.

- UC 320 / SOC 320 / PSYCH 310: Processes of Intergroup Dialogues Facilitation
- UC 321 / SOC 321 / PSYCH 311: Practicum in Facilitating Intergroup Dialogues.
B. The Campus Communities and Research Track ( 8 credits) allows students to explore praxis in broader community and research contexts and prepares them to understand inequality and develop coalitions for social justice work.
- Statistics. STATS 250 or SOC 210.

Students may request to substitute another research methods class other than STATS 250 or SOC 210.

- Social Psychology in Community Settings (UC 421) prepares students to recognize when social identities play a role in inequalities both on and off campus, to intervene in constructive ways when this happens, and to learn to act as peer educators in community settings, including residence halls and other campusbased settings.
- IGR Research Practicum (UC 325, PSYCH 326, or SOC 394 [taken for at least 2 credits]) allows students to practice intergroup skills in a more traditional academic setting: the research laboratory, as they are deepening their intergroup learning through the research process.
III. Elective Course: Students take at least one 3- or 4 -credit course in another academic unit that complement the goals of the minor. Students may also propose additional courses for consideration. The criteria used for selection include: The course must address social identities and intergroup relations in some way, and the course should discuss issues of inequality, power, privilege, and oppression or should focus on leadership and social change.
IV. IGR Senior Capstone: UC 471 / SOC 471 / PSYCH 411 IGR Senior Capstone: Social Justice in the Real World - an interdisciplinary experience to connect their learning throughout the minor. Students consider the broad national and global challenges facing their generation and examine them using realworld settings.


## Intergroup Relations Education Approved Electives

- AAPTIS 210 / AMCULT 215 / ARABAM 215: Introduction to ArabAmerican Studies
- AAS 202: Introduction to Afro-Caribbean Studies
- AAS 248: Crime, Race, and the Law
- AAS 262 / HISTORY 272: Modern Civil Rights Movement
- AAS 263: Race, Housing, and Employment
- AAS 358: Topics in Black World Studies (section titled "Race, Racism, and American Humor")
- AAS 451: Law, Race, and the Historical Process, II
- AMCULT 215 / ARABAM 215 / AAPTIS 210: Introduction to ArabAmerican Studies
- AMCULT 217 / NATIVEAM 217: Introduction to Native American Studies
- AMCULT 240 / WOMENSTD 240: Introduction to Women's Studies
- AMCULT 353 / ASIANPAM 353 / HISTORY 454: Asians in American Film and Television
- AMCULT 411 / WOMENSTD 411: Rednecks, Queers, and Country Music
- ANTHRCUL 302 / WOMENSTD 302 / HISTART 302: Sex and Gender in Japan
- ARABAM 215 / AMCULT 215 / AAPTIS 210: Introduction to ArabAmerican Studies
- ASIANPAM 353 / AMCULT 353 / HISTORY 454: Asians in American Film and Television
- COMM 428: Gender, Media, and the Law
- EDUC 463: Web-Based Mentorship: Arab-Israel Conflict Simulation
- ENVIRON 203 / ORGSTUDY 203: Activism
- HISTART 302 / ANTHRCUL 302 / WOMENSTD 302: Sex and Gender in Japan
- HISTORY 272 / AAS 262: Modern Civil Rights Movement
- HISTORY 349 / LACS 349: Revolutionary Movements in Modern Latin America
- HISTORY 454 / AMCULT 353 / ASIANPAM 353: Asians in American Film and Television
- INTLSTD 401: International Studies Advanced Seminar (section titled "Women and Islam: The Politics of Representation")
- LACS 349 / HISTORY 349: Revolutionary Movements in Modern Latin America
- ORGSTUDY 203 / ENVIRON 203: Activism
- PSYCH 280: Introduction to Social Psychology
- PSYCH 291 / WOMENSTD 291: Introduction to the Psychology of Women and Gender
- PSYCH 312 / UC 375 / SOC 375: Intergroup Conflict \& Coexistence: Religion, Ethnicity, \& Culture
- PSYCH 353: Social Development
- RCSSCI 360: Social Science Junior Seminar (section titled "Transgender Politics and Community Action")
- SM 421 / WOMENSTD 421: Gender and Sport
- SOC 345 / WOMENSTD 348: Sociology of Sexuality
- SOC 346: Sociology of the Body
- SOC 368: Criminology
- SOC 375 / UC 375 / PSYCH 312: Intergroup Conflict \& Coexistence: Religion, Ethnicity, \& Culture
- SOC 447 / WOMENSTD 447: Sociology of Gender
- SOC 458: Sociology of Education
- UC 375 / SOC 375 / PSYCH 312: Intergroup Conflict \& Coexistence: Religion, Ethnicity, \& Culture
- WOMENSTD 240 / AMCULT 240: Introduction to Women's Studies
- WOMENSTD 245: Introduction to LGBT and Queer Studies
- WOMENSTD 291 / PSYCH 291: Introduction to the Psychology of Women and Gender
- WOMENSTD 302 / ANTHRCUL 302 / HISTART 302: Sex and Gender in Japan
- WOMENSTD 330: Feminist Thought
- WOMENSTD 348 / SOC 345: Sociology of Sexuality
- WOMENSTD 411 / AMCULT 411: Rednecks, Queers, and Country Music
- WOMENSTD 421 / SM 421: Gender and Sport
- WOMENSTD 447 / SOC 447: Sociology of Gender


# Program in International and Comparative Studies (PICS) 

1080 South University Avenue, Suite 2660
(734) 764-2268 (phone)
(734) 763-9154 (fax)
www.ii.umich.edu/pics
e-mail: is-michigan@umich.edu
The Program in International and Comparative Studies (PICS) seeks to be a focal point for the interdisciplinary study of issues that transcend borders. We encourage students and faculty to broaden their horizons while they deepen their knowledge of particular cultures and political, economic, and social contexts. We administer one of the fastest growing and largest undergraduate programs on campus in the form of both a major and minor as well as fellowship support for students.

Knowledge and insight pertaining to global affairs and different societies and cultures are more important than ever in today's interconnected world. A well-developed international perspective contributes to personal intellectual growth, is an increasingly important component of America's civic culture, and is required for success in an expanding number of professions.

Advising: The International Studies Advisor will assist students in developing a program of study. Advising for the Honors plan is provided by the PICS Director and the PICS Honors Thesis advisor.

For more information, see:
www.ii.umich.edu/pics/academics/advising

## International Studies

May be elected as an interdepartmental major
Updated 1/27/2016 Winter 2016
Updated 4/7/2016 Fall 2016
Prerequisite to the Major: None
Prerequisite to Declaration of the Major

- INTLSTD 101 (Grade of C- or better)
- Students declaring the Political Economy \& Development sub-plan must complete ECON 101 with a grade of C- or better.
- Students must have started or completed $4^{\text {th }}$-term language proficiency.


## Requirements for the Major

A minimum of 33 credits.
Students must earn C- or better in all required PICS courses.
Language requirement courses are not included in the minimum 33 credits required for the major nor in the major GPA.

PICS Language Requirement for the Major. Sixth-term proficiency in a language other than English must be obtained prior to graduation; therefore, students should begin the language sequence early.

We believe that language study is a vital part of any liberal arts education, and that students who major in international studies should be well prepared to work in environments overseas, or in companies or organizations that interact regularly with people from other countries. The PICS language requirement will not only be of benefit to the students in broadening their skills and their vision of the world, but will also be an important signal to employers or graduate admissions committees about how our students are well-rounded and focused on the world and not just the United States.

Please see PICS website for details of and further information about the sixth-term language requirement.

## Course Requirements

Sub-Plans

- International Security, Norms \& Cooperation
- Political Economy \& Development
- Comparative Culture \& Identity
- Global Environment \& Health

The major in International Studies offers students the opportunity to take a set of courses across disciplines to bring multiple methods and concepts together to address global problems. The major is rigorous and offers a balanced approach between disciplinary depth and cross-disciplinary breadth.

It is an opportunity for students to create a curriculum that combines exposure to disciplinary depth and integrative coursework emphasizing successful interdisciplinary research. Our goal is to give students skills in moving among different units of analysis and different disciplinary approaches in order to understand, analyze, and ultimately help solve contemporary problems. International Studies students will be exposed to a rigorous curriculum emphasizing the use of multiple methods of analysis of such topics as global health trends, human rights and refugees, cultural homogenization and hybridization, environmental and energy crises, terrorism, transnational social movements, immigration, and the spread of technology. The major will draw on methods developed in specific disciplines such as economics, sociology, psychology, comparative literature, political science, anthropology, and history, and some methods emerging from cross-disciplinary and inter-disciplinary fields.

## International Security, Norms and Cooperation (ISNC) Sub-Plan

In this sub-plan, students take courses that help them reason about the international system of nation-states and of peoples with both competing and overlapping interests. Among topics covered are international relations, human rights, human security, international organizations, transnational social movements, war-making and peace-making, intra- and inter-state violence. Students gain an ability to analyze historical and contemporary global trends in these topics, and to compare experiences of nation-states and peoples across time and space.

1. Language Requirement: Sixth term proficiency.

## 2. Core Courses ( 6 credits):

- INTLSTD 301: Topics in International Studies
- INTLSTD 401: International Studies Advanced Seminar

3. Research Methods Course ( $\mathbf{3}$ credits): One research methods course chosen from the following list:

- CMPLXSYS 391 / POLSCI 391. Introduction to Modeling Political Processes
- ECON 309: Experimental Economics
- ECON 401: Intermediate Microeconomic Theory
- ECON 451 (or 405 prior to Fall 2014): Intermediate Introduction to Statistics and Econometrics I
- POLSCI 300 (or 499 prior to Winter 2016): Quantitative Empirical Methods of Political Science
- POLSCI 391/ CMPLXSYS 391. Introduction to Modeling Political Processes
- POLSCI 490: Game Theory and Formal Models
- SOC 310: Sociological Research Methods
- STATS 250: Introduction to Statistics and Data Analysis

Note: Completion of the Methods requirement is recommended prior to enrolling in INTLSTD 301.
4. Regional Course ( $\mathbf{3}$ credits): One geographic emphasis course devoted to a single world region or country that is related to foreign language of study.
5. ISNC Courses (12 credits): Four courses, chosen from an approved list, to gain knowledge in sub-plan area.

- At least one course must be at the 400 level.
- Must include at least two academic subjects.

ISNC courses include, but are not limited to:

- ANTHRCUL 333: Non-Western Legal Systems, I
- AAS 458: Issues in Black World Studies, section titled "Fighting with Human Rights - Africa"
- COMM 447: Women and Islam: The Politics of Representation
- ENVIRON 365: International Environmental Policy
- ENVIRON 490: War and Environment: A Lethal Reciprocity
- HISTORY 241: America and Middle Eastern Wars
- HISTORY 407: Advanced Study in Comparative and Transnational History, sections titled
"Japan, Asia and WWII: Culture, History, Memory"
"Gender, Sexuality, \& International Human Rights"
"Christ.\& Pol. In Afr. Hist"
- INTLSTD 401: International Studies Advanced Seminar, sections titled
"Women and Islam: The Politics of Representation"
"Fighting with Human Rights - Africa"
"Humanitarian Dilemmas"
"Migration, Human Smugglings and Trafficking"
"History and Memory of Genocide"
"Gender, Sexuality, \& International Human Rights"
"Christ.\& Pol. In Afr. Hist"
"Norm Diffusion: International, Regional \& Public Policy" "The Politics of Debt"
- POLSCI 353: The Arab-Israeli Conflict
- POLSCI 364: Public International Law
- POLSCI 369: Politics of International Economic Relations
- POLSCI 498: Undergraduate Seminar in International Politics, sections titled
"Norm Diffusion: International, Regional \& Public Policy" "The Politics of Debt"
- RCSSCI 461: Senior Seminar, section titled "Gender, Sexuality, \& International Human Rights"
- SOC 350: Human Rights in the United Nations
- SOC 495: Topics in Sociology, section titled
"Global and Local Connections: Understanding our World at Home and Abroad"

Note: Complete term specific sub-plan course lists may be found on the PICS courses website.
6. Three electives ( 9 credits): The electives are designed to allow students to further personalize their major. Students will elect three advanced courses which will be expected to build upon the theme of their sub-plans. The selected courses should thus contribute to the coherence of the student's overall concentration. Students may select additional sub-plan, regional, or relevant study abroad courses, however there is no preapproved list of electives. Because there is no preapproved list, students must seek and obtain the approval of elective courses - on a course-by-course basis - from a PICS advisor. It is strongly advised that this approval be obtained before taking the class.

## Political Economy and Development (PED) Sub-Plan

In this sub-plan, students take courses that help them reason about the global economy and about comparing the political economies of nationstates and regions. Among topics covered are international economics, the political economy of development, regulation of economies, international trade, political contestation over economics, government budgeting, comparative labor economics, and political-economic history. Students gain an ability to analyze historical and contemporary global trends in these topics, and to compare experiences of nation-states and peoples across time and space.

Prerequisite to Declaration of the subplan: ECON 101 (Grade of C- or better)

1. Language Requirement: Sixth term proficiency.

## 2. Core Courses ( 6 credits):

- INTLSTD 301: Topics in International Studies
- INTLSTD 401: International Studies Advanced Seminar

3. Research Methods Course ( $\mathbf{3}$ credits): One research methods course chosen from the following list:

- CMPLXSYS 391 / POLSCI 391. Introduction to Modeling Political Processes
- ECON 309: Experimental Economics
- ECON 401: Intermediate Microeconomic Theory
- ECON 451 (or 405 prior to Fall 2014): Intermediate Introduction to Statistics and Econometrics I
- POLSCI 300 (or 499 prior to Winter 2016): Quantitative Empirical Methods of Political Science
- POLSCI 391/ CMPLXSYS 391. Introduction to Modeling Political Processes
- POLSCI 490: Game Theory and Formal Models
- SOC 310: Sociological Research Methods
- STATS 250: Introduction to Statistics and Data Analysis

Note: Completion of the Methods requirement is recommended prior to enrolling in INTLSTD 301.
4. Regional Course ( $\mathbf{3}$ credits): One geographic emphasis course devoted to a single world region or country that is related to foreign language of study.
5. PED Courses ( $\mathbf{1 2}$ credits): Four courses, chosen from an approved list, to gain knowledge in sub-plan area.

- At least one course must be an ECON course on approved subplan list. (Note: these courses may have additional prerequisites.)
- At least one course must be at the 400 level.
- Must include at least two academic subjects.

PED courses include, but are not limited to:

- AAS 408: African Economies: Social and Political Settings
- AAS 458: Issues in Black World Studies, section titled
"Business \& Politics in Developing Countries"
- ANTHRCUL 328: Globalizing Consumer Cultures
- ECON 340: International Economics
- ECON 441: International Trade Theory
- ECON 442: International Finance
- ECON 461: The Economics of Development I
- ENVIRON 270: Our Common Future: Ecology, Economics \& Ethics of Sustainable Development
- INTLSTD 401: International Studies Advanced Seminar, sections titled
"Humanitarian Dilemmas"
"Migration, Human Smugglings and Trafficking"
"Business \& Politics in Developing Countries"
"Origins of Economic Growth"
"Norm Diffusion: International, Regional \& Public Policy" "The Politics of Debt"
- POLSCI 348: Political Economy of Development
- POLSCI 353: The Arab-Israeli Conflict
- POLSCI 369: Politics of International Economic Relations
- POLSCI 396 / SLAVIC 396 / REEES 396 / SOC 393: East Central Europe: Nationalism, Socialism, Democracy
- POLSCI 489: Advanced Topics in Contemporary Political Science, sections titled
"Business \& Politics in Developing Countries"
"African Economies: Social and Political Settings"
- POLSCI 497: Undergraduate Seminar in Comparative and Foreign Government, section titled
"Development \& the Quality of Governance"
- POLSCI 498: Undergraduate Seminar in International Politics, sections titled
"Politics of International Finance"


# "Norm Diffusion: International, Regional \& Public Policy" "The Politics of Debt" <br> - REEES 396 / SLAVIC 396 / POLSCI 396 / SOC 393: East Central Europe: Nationalism, Socialism, Democracy <br> - SLAVIC 396 / POLSCI 396 / REEES 396 / SOC 393: East Central Europe: Nationalism, Socialism, Democracy <br> - SOC 393 / SLAVIC 396 / POLSCI 396 / REEES 396: East Central Europe: Nationalism, Socialism, Democracy <br> - STRATEGY 310: The World Economy <br> - STRATEGY 361: International Management 

Note: Complete term specific sub-plan course lists may be found on the PICS courses website.
6. Three electives ( 9 credits): The electives are designed to allow students to further personalize their major. Students will elect three advanced courses which will be expected to build upon the theme of their sub-plans. The selected courses should thus contribute to the coherence of the student's overall concentration. Students may select additional sub-plan, regional, or relevant study abroad courses, however there is no preapproved list of electives. Because there is no preapproved list, students must seek and obtain the approval of elective courses-on a course-by-course basis -from a PICS advisor. It is strongly advised that this approval be obtained before taking the class.

## Comparative Culture and Identity (CCI) Sub- Plan

In this sub-plan, students take courses that help them understand the richness of behavioral, literary, and artistic expressions reflecting the diversity of the human experience. Among topics covered are theories of culture, theories of identity, comparative belief systems and societal organizations, nationalism, comparative literary and film traditions, comparative ideologies, colonialism and post-colonialism, global arts, comparative gender studies, and cultural transmission. Students gain an ability to analyze historical and global trends in these topics, and to compare experiences of diverse communities and diverse individuals across time and space.

1. Language Requirement: Sixth term proficiency.

## 2. Core Courses ( 6 credits):

- INTLSTD 301: Topics in International Studies
- INTLSTD 401: International Studies Advanced Seminar

3. Methods of CCI (3 credits): At least one course chosen from the following list:

- ANTHRCUL 222: The Comparative Study of Cultures
- COMPLIT 322: Translating World Literatures
- SOC 210: Elementary Statistics

Note: Completion of the Methods requirement is recommended prior to enrolling in INTLSTD 301.
4. Regional Course ( $\mathbf{3}$ credits): One geographic emphasis course devoted to a single world region or country that is related to foreign language of study.
5. CCI Courses ( $\mathbf{1 2}$ credits): Four courses, chosen from an approved list, to gain knowledge in sub-plan area.

- Globalization and Culture: One course chosen from the following list:

COMPLIT 240: Literature Across Borders
o HISTORY 101 / INTLSTD 205: What is History?
o INTLSTD 205 / HISTORY 101: What is History?
o JUDAIC 253: The Mediterranean: Jewish Studies
o ROMLANG 253: The Mediterranean: History and Culture

- At least one course must be at the 400 level.
- Must include at least two academic subjects.

CCl courses include, but are not limited to:

[^0]o AAS 355 / ANTHRCUL 355 / HISTORY 355: Health and Illness in African Worlds
o AAS 422 / ANTHRCUL 411: African Cultures
o AAS 458: Issues in Black World Studies, sections titled
"Human Rights \& LGBTI in Sub-Saharan Africa"
"Business \& Politics in Developing Countries"
"Fighting with Human Rights - Africa"
o ANTHRCUL 222: Comparative Study of Cultures
o ANTHRCUL 256 / ENVIRON 256: Culture, Adaptation and Environment
ANTHRCUL 319: Latin American Society and Culture
ANTHRCUL 325 / WOMENSTD 324: Childbirth \& Culture
ANTHRCUL 328: Globalizing Consumer Cultures
ANTHRCUL 333: Non-Western Legal Systems, I
ANTHRCUL 349: Indigenous Political Movements
ANTHRCUL 355 / HISTORY 355 / AAS 355: Health and Illness in African Worlds
ANTHRCUL 411 / AAS 422: African Cultures
COMM 447: Women and Islam: The Politics of Representation
o COMPLIT 212 / GTBOOKS 212: Great Books in World Literature
o COMPLIT 240: Literature Across Borders, section titled "Matters of Life and Death"
COMPLIT 322: Translating World Literatures
o COMPLIT 490: Comparative Cultural Studies, section titled "Narratives of Immigration"
o ENGLISH 375: World Literatures in English
o ENVIRON 256 / ANTHRCUL 256: Culture, Adaptation and Environment
o GTBOOKS 212 / COMPLIT 212: Great Books in World Literature
HISTORY 241: America and Middle Eastern Wars
HISTORY 247 / AAS 247: Modern Africa
HISTORY 355 / ANTHRCUL 355 / AAS 355: Health and Illness in African Worlds
o HISTORY 407: Advanced Study in Comparative and Transnational History, section titled
"Japan, Asia and WWII: Culture, History, Memory"
"Christ. \& Pol. In Afr. Hist"
o INTLSTD 401: International Studies Advanced Seminar, sections titled
"Human Rights \& LGBTI in Sub-Saharan Africa"
"Women and Islam: The Politics of Representation"
"Fighting with Human Rights - Africa"
"Christ. \& Pol. In Afr. Hist"
"Humanitarian Dilemmas"
"Migration, Human Smugglings and Trafficking"
"Business \& Politics in Developing Countries"
o NEAREAST 200 / RELIGION 201: Introduction to World Religions: Near Eastern
o POLSCI 353: The Arab-Israeli Conflict
o POLSCI 489: Advanced Topics in Contemporary Political Science, section titled
"Business \& Politics in Developing Countries"
o RELIGION 201 / NEAREAST 200: Introduction to World Religions: Near Eastern
o SOC 350: Human Rights in the United Nations
o SOC 495: Topics in Sociology, section titled
"Global and Local Connections: Understanding our World at Home and Abroad"
o WOMENSTD 324 / ANTHRCUL 325: Childbirth \& Culture
Note: Complete term specific sub-plan course lists may be found on the PICS courses website.
6. Three electives ( 9 credits): The electives are designed to allow students to further personalize their major. Students will elect three advanced courses which will be expected to build upon the theme of their sub-plans. The selected courses should thus contribute to the coherence of the student's overall concentration. Students may select additional sub-plan, regional, or relevant study abroad courses,
however there is no preapproved list of electives. Because there is no preapproved list, students must seek and obtain the approval of elective courses-on a course-by-course basis -from a PICS advisor. It is strongly advised that this approval be obtained before taking the class.

## Global Environment and Health (GEH) Sub-Plan

In this sub-plan, students take courses that help them understand the latest knowledge on global trends in public health and in the natural environment as it intersects with the human experience. Among topics covered are global public health, comparative health policy, pandemics, comparative environmental policymaking, comparative history of mental health treatments across countries, environmental disasters, and climate change. Students gain an ability to analyze historical and global trends in these topics, and to compare experiences of diverse communities and peoples across time and space.

1. Language Requirement: Sixth term proficiency.
2. Core Courses ( 6 credits):

- INTLSTD 301: Topics in International Studies
- INTLSTD 401: International Studies Advanced Seminar

3. Research Methods Course ( $\mathbf{3}$ credits): One research methods course chosen from the following list:

- CMPLXSYS 391 / POLSCI 391. Introduction to Modeling Political Processes
- ECON 309: Experimental Economics
- ECON 401: Intermediate Microeconomic Theory
- ECON 451 (or 405 prior to Fall 2014): Intermediate Introduction to Statistics and Econometrics I
- POLSCI 300 (or 499 prior to Winter 2016): Quantitative Empirical Methods of Political Science
- POLSCI 391/ CMPLXSYS 391. Introduction to Modeling Political Processes
- POLSCI 490: Game Theory and Formal Models
- SOC 310: Sociological Research Methods
- STATS 250: Introduction to Statistics and Data Analysis

Note: Completion of the Methods requirement is recommended prior to enrolling in INTLSTD 301.
4. Regional Course ( $\mathbf{3}$ credits): One geographic emphasis course devoted to a single world region or country that is related to foreign language of study.
5. GEH Courses ( $\mathbf{1 2}$ credits): Four courses, chosen from an approved list, to gain knowledge in sub-plan area.

- At least one course must be at the 400 level.
- Must include at least two academic subjects.

GEH courses include, but are not limited to:

- AAS 355 / ANTHRCUL 355 / HISTORY 355: Health and Illness in African Worlds
- AAS 365 / WOMENSTD 365: Global Perspectives on Gender, Health \& Reproduction
- AMCULT 284 / HISTORY 284: Sickness \& Health in Society: 1492 to the Present
- ANTHRCUL 212 / WOMENSTD 212 / NURS 225: The Global HIV/AIDS Epidemic
- ANTHRCUL 256 / ENVIRON 256: Culture, Adaptation and Environment
- ANTHRCUL 325 / WOMENSTD 324: Childbirth \& Culture
- ANTHRCUL 344: Medical Anthropology
- ANTHRCUL 355 / HISTORY 355 / AAS 355: Health and Illness in African Worlds
- EEB 315 / ENVIRON 315: The Ecology and Evolution of Infectious Diseases
- ENVIRON 222: Introduction to Environmental Justice
- ENVIRON 256 / ANTHRCUL 256: Culture, Adaptation and Environment
- ENVIRON 270: Our Common Future: Ecology, Economics \& Ethics of Sustainable Development
- ENVIRON 306: Global Water
- ENVIRON 315 / EEB 315: The Ecology and Evolution of Infectious Diseases
- ENVIRON 365: International Environmental Policy
- ENVIRON 490: War and Environment: A Lethal Reciprocity
- HISTORY 284 / AMCULT 284: Sickness \& Health in Society: 1492 to the Present
- HISTORY 355 / ANTHRCUL 355 / AAS 355: Health and Illness in African Worlds
- INTLSTD 387: Topics in Global Environment and Health, section titled
"Implement Solu for Global HIth Equity"
- INTMED 387: Implementation Solution for Global Health Equity
- NURS 225 / ANTHRCUL 212 / WOMENSTD 212: The Global HIV/AIDS Epidemic
- SOC 475: Introduction to Medical Sociology
- WOMENSTD 212 / ANTHRCUL 212 / NURS 225: The Global HIV/AIDS Epidemic
- WOMENSTD 324 / ANTHRCUL 325: Childbirth \& Culture
- WOMENSTD 365 / AAS 365: Global Perspectives on Gender, Health \& Reproduction

Note: Complete term specific sub-plan course lists may be found on the PICS courses website.
6. Three electives ( 9 credits): The electives are designed to allow students to further personalize their major. Students will elect three advanced courses which will be expected to build upon the theme of their sub-plans. The selected courses should thus contribute to the coherence of the student's overall concentration. Students may select additional sub-plan, regional, or relevant study abroad courses, however there is no preapproved list of electives. Because there is no preapproved list, students must seek and obtain the approval of elective courses-on a course-by-course basis -from a PICS advisor. It is strongly advised that this approval be obtained before taking the class.

## Honors Plan

Students interested in an Honors major elect the Honors section of INTLSTD 101, and must complete INTLSTD 101 with a grade of B+ or better. Students who have declared a major in International Studies must have an overall GPA of 3.4, must complete all International Studies requirements for the major with a 3.4 or higher average in those courses, and complete a senior Honors thesis.

## Students must earn C- or better in all required PICS courses.

During their senior year, students writing a thesis will enroll in INTLSTD 489 during Fall term and INTLSTD 499 during Winter term. The thesis will have a minimum length of 50 pages. Students are responsible for locating their own thesis advisor. Advisor and topic must be approved by PICS director.

An instructor will oversee the Honors plan. This will include a class meeting with all Honors thesis students as a collective, at least twice per semester of their senior year, and once at the end of their junior year, to review requirements, answer questions, and discuss research practices and principles.
Each student will have an oral defense of the thesis in a meeting with the advisor and the PICS instructor, plus one outside reader from the faculty.
Student grades on the thesis will be determined by the PICS instructor in consultation with the thesis advisor.

Advising for the Honors plan is provided by the Honors thesis advisor and the PICS Honors Plan advisor.

## Minor in International Studies

Not open to students electing the International Studies major
The International Studies Minor is intended to be a rigorous program of study. It will be of interest to students prepared to make a serious
investment in adding an international dimension to the instructional program associated with a disciplinary major.

The minor in International Studies offers students an opportunity to add to their disciplinary major a program of study that includes the following:
(1) attention to another country or world region;
(2) interdisciplinary coursework devoted to a particular theme or topic of international relevance;
(3) progress toward proficiency in a foreign language;
(4) support for an education abroad experience; and
(5) an innovative interdisciplinary seminar.

Prerequisites to the Minor: Sixth-term proficiency in a language other than English must be satisfied through the study of a language used in the country or world area that is the focus of geographic coursework. The Director of the Program in International and Comparative Studies (PICS) will consider requests involving a different language, but it is expected that students will in all cases complete at least one year of coursework in a language used in the region of geographic emphasis. Any exceptions to the PICS language requirement must be approved by written consent of the PICS Director.

Requirements for the Minor: Students are required to complete a minimum of 18 credits of course work, exclusive of language study. These courses must include the following:

1. A "geographic" emphasis composed of three courses devoted to a single world region (e.g., Africa, South Asia) or country (e.g., China, India). At least two of the three geographic courses must be 300 -level or above.
2. A "thematic" emphasis composed of three courses devoted to a given theme or topic (e.g., international conflict and security, human rights, music and ethnomusicology). At least two of the three thematic courses must be 300-level or above. At least two of the three thematic courses must give primary attention to countries or world regions beyond the United States. A third course devoted to the same theme can give significant attention to the United States if there is a clear intellectual reason for doing so.

## Geographic and thematic course selections must be approved by the International Studies Advisor.

Each three-course set must possess intellectual coherence, and there must also be a clear and logical connection between the focus of the selected geographic and thematic courses. The International Studies advisor will consult the Director of PICS and members of the PICS

Advisory Committee for guidance in assessing a proposed program of study.

One course can be "double-counted" and thus count for both the geographic and the thematic requirement for the major. It is expected that most students will choose to double-count one course; those not choosing to do so will be required to complete 21 credits of coursework for the International Studies Minor.

The five or six geographic and thematic courses taken by a student must be from at least two academic disciplines. No more than one of these courses may be offered by the department of the student's disciplinary major. If the courses are taught by faculty members in a single department (e.g., Women's Studies, Germanic Languages and Literatures, Asian Languages and Cultures, Near Eastern Studies), the faculty members must be from at least two different disciplines.
3. An interdisciplinary International Studies Advanced Topics Seminar will be offered for students in the minor. This course cannot be taken prior to the second term of the junior year. Students enrolled in the minor may take the course more than once, but it can only be counted once toward the 18 credits required for the minor.

The International Studies Advanced Topics Interdisciplinary Seminar is a variable content course designed to bring an interdisciplinary perspective to the study of a topic of international significance. Some seminars will be team-taught and some will be taught by faculty with International Institute sponsored appointments. Seminars may occasionally be taught by visiting international scholars. At least one International Studies Seminar will be offered every year.

Education Abroad: An education abroad experience is strongly encouraged. The International Studies advisor, in cooperation with the Center for Global and Intercultural Study (CGIS), will assist students in identifying education abroad opportunities consistent with their needs and interests. At least 10 credits toward the minor must be taken in residence (which can include courses in U-M study abroad programs).

Limited funding will be made available to students in the International Studies minor to encourage and facilitate participation in education abroad programs. Applications for these funds should demonstrate a connection between the overseas program and the student's area(s) of emphasis.

Although strongly encouraged, an education abroad experience is not required for the International Studies minor since some students may be unable to meet this requirement because of financial, family, or other considerations.

## International Institute (II)

1080 South University Avenue, Suite 2660
(734) 763-9200 (phone)
(734) 763-9154 (fax)
www.ii.umich.edu
e-mail: iimichigan@umich.edu
The University of Michigan International Institute (II) advances the exchange of knowledge, ideas, and resources across U-M's campus and with partnering institutions worldwide. Working actively with its centers
and other academic units, the institute expands and enriches instructional programs, advances language study, and provides funding to students and faculty for research and study overseas. The II also brings leading scholars together to address national and international problems and collaborates with other academic units to recruit faculty members with international expertise.

## Center for Japanese Studies (CJS)

1080 South University Avenue, Suite 4640
(734) 764-6307 (phone)
(734) 936-2948 (fax)
www.ii.umich.edu/cjs
e-mail: umcjs@umich.edu
Undergraduates may pursue Japanese Studies through the Asian Studies major or minor of the Department of Asian Languages and Cultures.

The Center for Japanese Studies (CJS) promotes and disseminates research on Japan, fosters communication among diverse disciplines, and encourages new approaches in the understanding of Japan and its place in
the world. Founded in 1947, CJS is the oldest interdisciplinary center in the United States devoted exclusively to Japanese Studies. CJS is also part of the University of Michigan's U.S. Department of Education Title VI East Asia National Resource Center, along with the Center for Chinese Studies and the Nam Center for Korean Studies. The Center supports a community of over forty Japan area specialists who teach and pursue research in the University's various departments and professional schools.

The Center for Japanese Studies (CJS) offers a broad, interdisciplinary approach to the study of Japan at the Master's level. Undergraduates may pursue Japanese Studies through the Asian Studies major or minor of the Department of Asian Languages and Cultures.

# Jean \& Samuel Frankel Center for Judaic Studies 

2111 Thayer Building
202 South Thayer Street
(734) 763-9047 (phone)
(734) 936-2186 (fax)
www.Isa.umich.edu/judaic
e-mail: JudaicStudies@umich.edu
The Frankel Center for Judaic Studies at the University of Michigan offers students an interdisciplinary approach to the study of Jewish cultures and societies. Judaic Studies courses explore the diverse experiences of the Jewish people, their traditions, their histories, their interactions with other cultures, and their impact on world civilizations.

Advising. A student who is interested in a major in Judaic Studies should meet with the major advisor as early as possible to plan a coherent course of study. Please email JudaicStudies@umich.edu or call 734-615-6097 to schedule an appointment.

## Judaic Studies

May be elected as an interdepartmental major
1/27/2016 effective Fall 2016
4/18/2016 effective Fall 2016
A major in Judaic studies is not open to students with a minor in Judaic Studies, a minor in Yiddish Studies, or a Hebrew Studies submajor from the Department of Near Eastern Studies

A major in Judaic Studies enhances vital skills in research and writing, critical and creative thinking, cultural awareness, public speaking, and persuasive communicating. Judaic Studies majors pursue careers in Jewish communal services, social work, education, development, political advocacy, religious leadership, law, medicine, business, and other professional fields.

Prerequisites to the Major. Second semester proficiency in Hebrew (HJCS 102) or Yiddish (JUDAIC 102), achieved either through course work or placement examination.

Requirements for the Major. Students are required to complete a minimum of 28 credits. At least 12 credits must be at 300 or 400 level; at least one of these courses must be at the 400 level.
A. Core. At least 2 of the following

- JUDAIC 205: What is Judaism?
- JUDAIC 210: Sources of Jewish History
- JUDAIC 281: Jews in Modern World
B. Electives: All courses must be at the 200-level or above and either approved by a major advisor or chosen from the following list.


## Judaic Studies

Any course in JUDAIC or YIDDISH at the 200-level or above, or crossslisted with JUDAIC or crosslisted with YIDDISH, except for elementary language courses (JUDAIC 201, 202, 531, 532 or GERMAN 227,228 or YIDDISH 201, 202, 531, 532)

## Courses in other departments

- AMCULT 342 / HISTORY 368 / WOMENSTD 360. History of the Family in the U.S.
- CLARCH 327 / CLCIV 327 / NEAREAST 355 / RELIGION 326. Jews in the Roman Mediterranean: Archaeology, Religion, and Culture
- CLCIV 327 / CLARCH 327 / NEAREAST 355 / RELIGION 326. Jews in the Roman Mediterranean: Archaeology, Religion, and Culture
- ENGLISH 313. Topics in Literary Studies, section titled "Literature of the Holocaust" [TopicID \#19]
- ENGLISH 317. Literature and Culture, sections titled "Yiddish Classics" [TopicID \#4]
"Yiddish Classics and Modernity" [TopicID \#43]
"Literature of the Holocaust" [TopicID \#63]
- GERMAN 322 / HISTORY 322. The Origins of Nazism
- HEBREW 301. Advanced Hebrew I
- HEBREW 302. Advanced Hebrew II
- HISTORY 322 / GERMAN 322. The Origins of Nazism
- HISTORY 368 / AMCULT 342 / WOMENSTD 360. History of the Family in the U.S.
- NEAREAST 200 / RELIGION 201. Introduction to World Religions: Near Eastern
- NEAREAST 201. Madness, Medicine, and Magic in the Middle East
- NEAREAST 235 / RELIGION 121. Introduction to the Tanakh/Old Testament
- NEAREAST 238 / RELIGION 280. The Historical Jesus in Christianity, Judaism, and Islam
- NEAREAST 242 / RELIGION 270. Introduction to Rabbinic Literature
- NEAREAST 326. The Arab-Israeli Conflict in Middle Eastern Literature
- NEAREAST 335 / RELIGION 359. History and Religion of Ancient Judaism
- NEAREAST 339 / RELIGION 358. Israel Before the Exile (587 BCE): Its History \& Religion
- NEAREAST 355 / CLARCH 327 / CLCIV 327 / RELIGION 326. Jews in the Roman Mediterranean: Archaeology, Religion, and Culture
- POLSCI 351. Israeli Society and Politics
- POLSCI 353. The Arab-Israeli Conflict
- RELIGION 121 / NEAREAST 235. Introduction to the Tanakh/Old Testament
- RELIGION 201 / NEAREAST 200. Introduction to World Religions: Near Eastern
- RELIGION 270 / NEAREAST 242. Introduction to Rabbinic Literature
- RELIGION 280 / NEAREAST 238. The Historical Jesus in Christianity, Judaism, and Islam
- RELIGION 326 / NEAREAST 355 / CLARCH 327 / CLCIV 327. Jews in the Roman Mediterranean: Archaeology, Religion, and Culture
- RELIGION 358 / NEAREAST 339. Israel Before the Exile (587 BCE): Its History \& Religion
- RELIGION 359 / NEAREAST 335. History and Religion of Ancient Judaism
- WOMENSTD 360 / HISTORY 368 / AMCULT 342. History of the Family in the U.S.


## Restrictions:

- Students may not use more than one Independent study course as an elective.
- Only advanced Hebrew and Yiddish language courses (300-level and 400-level) may count toward the major / minor.

Residence Requirement. Fifteen of the 28 credits must be elected in residence unless special permission is given by the major advisor.

Honors Plan. The Center offers an Honors plan to qualified Judaic Studies students. Application for an Honors plan is usually made at the beginning of the third year. Participation requires a 3.5 grade point average. Graduation with Honors is recommended for students who complete all College and Judaic Studies graduation requirements, maintain a 3.5 GPA, and write a substantial Honors thesis which is judged worthy of Honors designation by the thesis advisor and at least one other faculty reader. An Honors plan is not limited to students who have been in the College Honors Program in the first and second years. For more information about Honors, email Ask.Honors@umich.edu or call 734.764.6274.

## Minors in Judaic Studies

## Judaic Studies Minor

A minor in Judaic Studies is not open to students with a major in Judaic Studies, a minor in Yiddish Studies, or a Hebrew Studies submajor from the Department of Near Eastern Studies.

## 1/27/2016 effective Fall 2016

## 4/18/2016 effective Fall 2016

The minor in Judaic Studies provides a basic familiarity with Judaic Studies. It introduces students to Jewish cultures and societies. Judaic Studies courses explore the diverse experiences of the Jewish people, their traditions, their histories, their interactions with other cultures, and their impact on world civilizations. The fifteen credits required for a minor in Judaic Studies are tailored to complement and enrich the programs of students who come from a widespread range of disciplines. A minor in Judaic Studies enhances vital skills in research and writing, critical and creative thinking, cultural awareness, public speaking, and persuasive communicating. Judaic Studies minors pursue careers in Jewish communal services, social work, education, development, political advocacy, religious leadership, law, medicine, business, and other professional fields.

## Prerequisites to the Minor: None

Requirements for the Minor: At least 15 credits. At least two courses (6 credits) must be taken at the 300 or 400 -level
A. Core. At least one of the following three core courses:

- JUDAIC 205: What is Judaism?
- JUDAIC 210: Sources of Jewish History
- JUDAIC 281: Jews in Modern World
B. Electives. The remainder of the 15 credits selected from the following list:
See the electives for the Judaic Studies major.


## Restrictions:

- Students may not use more than one Independent study course as an elective.
- Only advanced Hebrew and Yiddish language courses (300-level and 400-level) may count toward the major / minor.

Residence Requirement: At least three of the courses counting toward the minor must be taken at the UM-Ann Arbor campus.

## Yiddish Studies Minor

A minor in Yiddish Studies is not open to students with a major or minor in Judaic Studies.

## 4/18/2018 effective Fall 2016

The University of Michigan is an internationally recognized hub of experts in Yiddish studies and a pre-eminent center for Yiddish studies scholarship. The Yiddish Studies minor offers undergraduates a unique opportunity to focus on the study of the Yiddish language and explore its culture from the perspective of a variety of disciplines. Students of Yiddish gain access to entire worlds of Jewish culture that are otherwise obscure, from folk songs and memoirs to literary criticism, mystical literature, and historiography. As a diasporic language that flourished without the aid of a nation state or even homeland, Yiddish models alternative modes of Jewish cultural production in the medieval and modern eras. Not having its own nationstate borders, Yiddish has been traveling in the mouths of Ashkenazi Jews within and beyond Europe, to the Americas, Israel, Australia, and South Africa. In the $20^{\text {th }}$ century, Yiddish was marginalized as a Jewish language in favor of Hebrew, abandoned as a daily language in favor of local state languages like English, Russian, and Polish, and devastated by the Nazi and Stalinist regimes. And yet the vibrancy of Yiddish culture and literature continues to reverberate throughout the world in diverse forms of cultural production, including music and theater and secular and sacred literatures.

Students interested in particular places, such as Eastern Europe or the Americas, or engaged with international studies, which is explicitly comparative, will find that a minor in Yiddish studies will complement and enrich their understanding of these subjects by encouraging them to view the world from the point of view of a minority community deeply engaged with majority society.

This minor is intended for undergraduates who are captivated by Yiddish language as a window into a unique Jewish world. These students want to study a Jewish language but are not drawn to Hebrew; they prefer to follow a less well-trodden path that illuminates Jewish culture produced in

Europe, the Americas, and wherever Ashkenazi immigrants settled. The prerequisite language study is necessary to give students basic competence in reading and speaking, grammar and simple writing assignments. The second year language sequence introduces Yiddish culture along with more advanced grammar as well as speaking that extends beyond simple sentences. It gives students a solid grounding in selected elements of Yiddish literature (poems, songs, short stories, newspaper articles). YIDDISH 201-202 often focuses on a particular theme to give coherence to the items studied.

Prerequisites to the Minor: Elementary Yiddish [Students must either take YIDDISH 101-102 at U-M or take an intensive summer course elsewhere (there are several that exist; at YIVO in conjunction with Bard College, at the National Yiddish Book Center, at Tel Aviv University, at Oxford University) that will qualify a student to take YIDDISH 201-202.]

Requirements for the Minor: A minimum of 15 credits, to be chosen from the following categories as stated below, with at least three courses at the 300-level or above:

1. Core Language: YIDDISH 201 and 202 (or JUDAIC 201 and 202), Intermediate Yiddish.
2. Electives: A minimum of 9 credits selected from the list of approved electives, below.

## A. Language

- YIDDISH 301 / JUDAIC 301: Advanced Yiddish I
- YIDDISH 302 / JUDAIC 302: Advanced Yiddish II
- JUDAIC 401: Readings in Yiddish Texts: (section titled "Yiddish Culture Between Tradition and Modernity")


## B. Literature

- YIDDISH 332 / JUDAIC 332. Yiddish Classics and Modernity
- YIDDISH 433 / JUDAIC 433. Yiddish Classics and Modernity
- JUDAIC 205 / HJCS 276: What is Judaism?
- JUDAIC 218: Humanities Topics in Judaism (sections titled "Jewish American Short Stories", "Urban Cafes and Modern Jewish Culture")
- JUDAIC 271 / SLAVIC 270: Contact and Conflict: Jewish Experience in Eastern Europe through Art, Film \& Literature
- JUDAIC 281 / HJCS 281 / SLAVIC 281: Jews in the Modern World: Texts, Images, Ideas
- JUDAIC 316: Topics in Jewish Literature: (section titled "Jewish Folk Literature")
- JUDAIC 317: Topics in Judaic Studies: (sections titled "Lost in Transit: Literature of Jewish Mobility", "Yiddish Classics and Modernity")
- JUDAIC 318: Humanities Topics in Judaism: (section titled "Jewish Literature", "Literature of the Holocaust")
- JUDAIC 332 / YIDDISH 332. Yiddish Classics and Modernity
- JUDAIC 384 / HISTORY 384: Modern Jewish History 1880-1948
- JUDAIC 386 / HISTORY 386 / GERMAN 391: The Holocaust
- JUDAIC 387 / HISTORY 387 / AMCULT 387: History of American Jews
- JUDAIC 417: Topics in Judaic Studies: (sections titled "Ethnicity in Israel Literature and Culture", "Exile \& Homecoming in Hebrew \& Jewish Literature", "Literature of the Holocaust", "Shtetl: Image \& Reality", "Yiddish in New York"
- JUDAIC 433 / YIDDISH 433. Yiddish Classics and Modernity
- JUDAIC 437 / AMCULT 437. Yiddish in New York: The First 150 Years.
- JUDAIC 467 / RELIGION 471 / HJCS 577: Seminar: Topics in the Study of Judaism: (sections titled "The Thought of Abraham Joshua Heschel", "Hasidism as Mysticism: Nahman Breslov")
- JUDAIC 481 / SLAVIC 481: Desire, Destiny, \& Death: Jews and Modernism in Eastern / Central Europe
- AMCULT 387 / HISTORY 387 / JUDAIC 387: History of American Jews
- AMCULT 437 / JUDAIC 437. Yiddish in New York: The First 150 Years.
- AMCULT 405: Topics in American Culture (section titled "Yiddish in New York: First 150 Years, 1870-2012")
- COMPLIT 490: Comparative Cultural Studies (section titled "Jews and Modernism")
- ENGLISH 317: Literature and Culture (section titled "Yiddish Classics and Modernity")
- ENGLISH 383: Jewish Literature
- ENGLISH 407: Topics in English Language \& Literature (section titled "Literature of the Holocaust")
- GERMAN 391 / HISTORY 386 / JUDAIC 386: The Holocaust
- HISTORY 384 / JUDAIC 384: Modern Jewish History 1880-1948
- HISTORY 386 / JUDAIC 386 / GERMAN 391: The Holocaust
- HISTORY 387 / JUDAIC 387 / AMCULT 387: History of American Jews
- HJCS 276 / JUDAIC 205: What is Judaism?
- HJCS 281 / JUDAIC 281 / SLAVIC 281: Jews in the Modern World: Texts, Images, Ideas
- HJCS 472: Introduction to Modern Hebrew Literature II (section titled "Ethnicity in Israel Literature and Culture")
- HJCS 577 / JUDAIC 467 / RELIGION 471: Seminar: Topics in the Study of Judaism: (sections titled "The Thought of Abraham Joshua Heschel", "Hasidism as Mysticism: Nahman Breslov")
- RELIGION 471 / JUDAIC 467 / HJCS 577: Seminar: Topics in the Study of Judaism: (sections titled "The Thought of Abraham Joshua Heschel", "Hasidism as Mysticism: Nahman Breslov")
- SLAVIC 270 / JUDAIC 271: Contact and Conflict: Jewish Experience in Eastern Europe through Art, Film \& Literature
- SLAVIC 281 / JUDAIC 281 / HJCS 281: Jews in the Modern World: Texts, Images, Ideas
- SLAVIC 481 / JUDAIC 481: Desire, Destiny, \& Death: Jews and Modernism in Eastern / Central Europe


## Nam Center for Korean Studies

1080 South University Avenue, Suite 4661
(734) 764-1825 (phone)
(734) 764-2252 (fax)
www.ii.umich.edu/ncks
e-mail: ncks.info@umich.edu
Undergraduates may pursue Korean Studies through the Asian Studies major or minor of the Department of Asian Languages and Cultures.

The Nam Center for Korean Studies (NCKS) is a unit of the International Institute within the University of Michigan. The program's goal is to foster teaching and research across disciplines and to use the academic resources of the university to promote an economic, political, and cultural understanding of Korea.

# Center for Latin American and Caribbean Studies (LACS) 

1080 South University Avenue, Suite 2620
(734) 763-0553 (phone)
(734) 615-8880 (fax)
www.ii.umich.edu/lacs
e-mail: lacs.office@umich.edu
The Latin American and Caribbean Studies Program (LACS) was founded at the University of Michigan as an undergraduate major in 1984. Over the years LACS has grown into a major interdisciplinary program, linking many faculty members from more than a dozen departments, and professionals with research interests in Latin America. LACS has achieved national recognition for its growth as an academic program and a center of excellence in area research. In 2006, LACS became one of twenty-four U.S. Department of Education-supported National Resource Centers for Latin American and Caribbean Studies.

LACS maintains strong ties with several other research and teaching programs on campus, including

- the Department of Afroamerican and African Studies (AAS),
- the Program in American Culture, and
- Latino/Latina Studies.

Several of the LACS program faculty are affiliated with these units and we frequently co-sponsor activities. Overlapping all four groups are research clusters of faculty and graduate students interested in such areas as:

- Latino/a history, "minority" identity, and the experience of migration
- The African Diaspora in the Americas
- Indigenous America
- Questions of colonialism and post-coloniality

LACS organizes and co-sponsors over 50 public lectures, workshops, and conferences each year, and has become a midwestern and Michigan resource for scholars and the public at large. LACS actively sponsors and co-sponsors events involving visiting scholars and speakers, and conferences and workshops in which participants from Latin America interact with University faculty, students, and members of the community.

## The major goals of the Center are:

- To offer broad-ranging undergraduate (major and minor) and graduate (certificate) academic programs in Latin American and Caribbean Studies at the University of Michigan.
- To promote and support initial field research of graduate students specializing in Latin American studies, with the help of resources such as Foreign Language and Area Studies awards.
- To promote interchange among faculty and graduate students through field research, special courses, events, and conferences.
- To maintain our active partnerships with scholars from Latin America.
- To develop collaborative relationships and closer links between the disciplinary departments of the College of Literature, Science and Arts and the professional schools of the University of Michigan by supporting promising students with research interests in Latin America.
- To serve as a resource on Latin America for area educators and the wider community.

Advising. Undergraduate Advisors at the International Institute are available to meet with undeclared students who would like to learn more about the program, and also with current majors and minors who would like to discuss course selection, degree requirements, major/minor releases, and other matters of concern. Appointments can be made through our online appointment calendar by clicking on: meet with an advisor. Information on all of our undergraduate programs and Walk-In Advising hours can also be found on our website: here. The International Institute's Undergraduate Advising Office is currently located at 1080 South University Avenue, Suite 2660.

## Latin American and Caribbean Studies

May be elected as an interdepartmental major

## Updated 3/21/2016 effective Fall 2016

The Interdepartmental Major in Latin American and Caribbean Studies is designed to provide students with a rigorous, multi-disciplinary approach to the study of Latin America and the Caribbean. A broad base of knowledge is established by the requirement of a core of upper-level work in languages, the social sciences, and the humanities. Analytical depth is demonstrated through the completion of a senior thesis under appropriate faculty supervision.

Prerequisites to the Major. None.
Requirements for the Major. A minimum of 30 credits. At least 20 credits must be at the 300-400 level.

LACS Language Requirement for the Major. Proficiency in Spanish [SPANISH 277 or RCLANG 294 or equivalent] or Portuguese [PORTUG 232 or equivalent] should be achieved as early as possible in the program. Students are encouraged to go beyond this, either with further work in the language chosen, or by achieving proficiency in the other major language.

Language requirement courses are not included in the minimum 30 credits required for the major nor in the major GPA.

Required Courses. Students must include at least one course from each of the following areas of study:

- Anthropology:

ANTHRCUL 319 (Latin American Society and Culture), 414 (Introduction to Caribbean Societies and Cultures, I), or an upper-level Anthropology course on Latin America, approved by an advisor.

- History:

HISTORY 347 (Latin America: The Colonial Period), or 348 (Latin America: The National Period), or an upper-level HISTORY course on Latin America, approved by an advisor.

- Literature:

SPANISH 381 (Survey of Latin American Literature, I), 382 (Survey of Latin American Literature, II), or an upper-level course in Latin American literature, approved by an advisor.

- Politics and Economy:

SPANISH 438 (Economy and Politics in Latin American/Spain), or an upper-level course in Latin American politics and/or economy, approved by an advisor. Note: courses in this area are usually found in the departments of Political Science, Sociology, and Spanish.

Elective Courses. The remainder of the 30 credits may be drawn from courses, from any department, that deal with Latin America and the Caribbean; including up to 4 credits of Quechua or Nahuatl language. Study Abroad coursework may be used toward the major with approval from an advisor.

Honors Plan. Application for an Honors major is usually made at the beginning of the third year. Participation requires a 3.5 GPA in all LACS coursework and a 3.4 overall GPA. Graduation with Honors is recommended for students who complete all College and LACS graduation requirements, maintain a 3.5 major GPA, 3.4 overall GPA, and write a substantial LACS Senior Thesis that is judged worthy of Honors designation by the thesis advisor and at least one other faculty reader. An Honors major is not limited to students who have been in the College Honors Program in the first and second years. LACS Honors candidates will enroll in LACS 399 during their thesis writing semester. More details about the Senior Thesis and about applying for LACS Honors may be obtained from an advisor.

## Latin American and Caribbean Studies Minor

A minor in Latin American and Caribbean Studies is not open to students with a major in Latin American and Caribbean Studies.

## Updated 3/21/2016 effective Fall 2016

The LACS minor is designed to provide students with a multidisciplinary approach to the study of Latin America and the Caribbean. It aims to enhance the student's disciplinary training, received through major in a traditional discipline, by exposing the student to the topics and issues that are raised in the multidisciplinary area studies approach to countries of the Americas.

Students wishing to pursue a minor in Latin American and Caribbean Studies must develop a specific plan for its completion in consultation with an advisor; including the declaration of one of three tracks: Health, Medicine and Science, Human Rights, or Latin American and Caribbean Societies.

Prerequisites to the Minor: SPANISH 232 or RCLANG 294, or PORTUG 232, or equivalent.

Requirements for the Minor: At least 15 credit of advisor approved courses at the 300-level and above, to be chosen from one of the following tracks:

## 1. Health, Medicine and Science

a. Two courses (6 credits) directly related to the fields of Health, Medicine and Science that touch on issues in the Latin American and Caribbean region.
b. Three courses (or at least 9 credits) drawn from courses, from any department, that cover Latin America and the Caribbean.
2. Human Rights
a. Two courses ( 6 credits) directly related to the field of Human Rights that touch on issues in the Latin American and Caribbean region.
b. Three courses (or at least 9 credits) drawn from courses, from any department, that cover Latin America and the Caribbean.
3. Latin American and Caribbean Societies
a. Two courses ( 6 credits) that touch on cultural and societal issues in the Latin American and Caribbean region.
b. Three courses (or at least 9 credits) drawn from courses, from that cover Latin America and the Caribbean.

## Constraints:

Interdisciplinary Requirement. Courses must be drawn from at least three different departments, with not more than six credits in any one department.

Study Abroad. Study Abroad coursework may be used toward the minor with approval from an advisor.

# Linguistics 

440 Lorch Hall, 1220
611 Tappan Street
(734) 764.0353 (phone)
(734) 936.3406 (fax)
www.lsa.umich.edu/lingusitics
e-mail: linguistics@umich.edu
Linguistics investigates all aspects of spoken and written human language. It is especially concerned with the general principles of language structure, its use and acquisition, with the structure and history of particular languages and groups of languages, with the role of language in human experience, and with the techniques employed in analyzing and describing language. The major in Linguistics is intended to provide an understanding of human language and its systematic study, as well as provide the opportunity to explore the importance of language in all areas of human life.

The general field of linguistics includes several subfields. Phonetics and phonology are especially concerned with the sounds of speech. Phonetics emphasizes the physical characteristics of speech sounds, and phonology deals with the way in which speech sounds are organized in languages. Syntax examines the way in which smaller units of language, such as words, are organized into the complex structure of phrases and sentences. Semantics seeks to understand how the forms of language are used to express meaning. Historical and comparative linguistics is concerned with the ways in which languages change through time, with the variations in language from place to place, and with the possible relationship among languages. Historical linguistics also includes the study of the history of specific languages and language groups, and the reconstruction of prehistoric languages.

In addition to these subfields of linguistics, several other sub-disciplines relate linguistics to other fields of study. Psycholinguistics treats language in its psychological aspects and is especially concerned with the ways in which cultural patterns and values relate to language structure, use, and change. Sociolinguistics deals with the interrelationship of language and society and with the covariation of language and social form Computational linguistics is concerned with the utilization of computational techniques in the analysis of language.

Some areas in which the findings of linguistics have found application include: translation, the design and documentation of computer software, language and national policy, speech pathology and speech therapy, the development of writing systems for previously unwritten languages, the teaching of first language skills such as reading and writing, and the teaching of second languages.

Pre-major courses in Linguistics. The Department of Linguistics offers a series of pre-major courses designed to meet the needs of students with broad interests in language-related issues as well as those of students with more focused interests in the study of language. The department has four general introductory courses: Introduction to Language (LING 111), Language and Human Mind (LING 209), Introduction to Linguistic Analysis (LING 210), and Introduction to Symbolic Analysis of Language (LING 212). LING 111 surveys the field of Linguistics, including the core areas and other major subfields as well; LING 209/PSYCH 242 introduces students to the "cognitive revolution" in connection with the study of language. LING 210 and 212 introduce students to the methods of linguistic analysis. These courses prepare students for upper-level linguistics courses.

## Linguistics Major and Minor Advising.

Advising appointments can be made at
https://webapps.Isa.umich.edu/AdvAppts/AA_StuSelfSvc1.aspx?ctgy=LING or by contacting linguistics@umich.edu.

## Linguistics

May be elected as an interdepartmental major
Prerequisites to the Major. None, but LING 209 or 210 or 212 are recommended.

Requirements for the Major. The linguistics major requires a total of 30 credits at the 300 level or higher; at least 18 of these credits must be in regular classroom offered by the Department of Linguistics. Specifically, these 18 credits may not include experiential practice, independent study, study abroad courses, transfer credits, or courses offered by other departments. (Note that courses cross-listed with LING are treated as Linguistics courses.) In addition, at most 6 credits of independent study and at most 6 credits of experiential practice may be counted toward the major.

Students should consult with their advisor to ensure that their major consists of a coherent set of courses. The interdisciplinary nature of the field of linguistics - and hence the interdisciplinary nature of the major makes it particularly important that students are aware of the options available to them.
A. Required Courses. All majors are required to take the following four courses. The coursework in LING 313, 315, and 316 should be completed as soon as possible, as it is intended to ensure that all students gain a solid understanding of the nature of language and the methods currently employed in the study of language.

1. LING $\mathbf{3 1 3} \mathbf{-}$ Sound Patterns. This course explores two fundamental aspects of the sounds of the world's languages: speech sounds as physical entities (phonetics) and speech sounds as linguistic units (phonology).
2. LING $\mathbf{3 1 5}$ - Introduction to Syntax. This course examines the rule systems whereby words are organized into phrases and phrases into sentences in natural languages.
3. LING $\mathbf{3 1 6}$ - Aspects of Meaning. This course introduces students to aspects of semantic and pragmatic systems in natural language, including logic and formal systems, reference/co-reference, and text analysis.
4. LING 497 - Capstone Seminar. This seminar is designed to provide students with a unified experience that brings previous coursework, particularly the other required courses, to bear on a specific topic that may vary by term.

In extraordinary circumstances, with permission of the undergraduate chair, an advanced course in the area of phonetics/phonology, semantics, or syntax could satisfy the LING 313, 315, or 316 requirement, respectively.
B. Additional Courses. Beyond the three basic courses, majors are encouraged to fill out their program, in consultation with a linguistics department advisor, with courses that satisfy their own particular interests and goals. These courses may be offered by the Department of Linguistics or another program or department. Each term, the Linguistics Undergraduate Program distributes a list of courses offered by other units that are approved for credit in the major in Linguistics. Majors may request that courses not on this list also count towards the required credits; these requests must be approved by the Undergraduate Program chair. See under "Major Profiles" for three organized sub-plans that are available to majors whose interests fall into one of those areas.

Double Major. Because the study of language is inherently interdisciplinary, a major in Linguistics can be designed to integrate very well with other academic fields. A large proportion of current linguistics majors (more than half) complete Double Majors.

An LSA Double Major requires satisfying all of the requirements for the major of both programs. However, since LSA places no limit on the number of credits that may be offered jointly for both majors, this allows students to double-concentrate with substantially fewer than 60 total credits for the major.

Students considering a Double Major in Linguistics and another field in LSA should consult department advisors in both fields.

## Honors Plan

The Honors plan in Linguistics requires completion of the requirements for the major and, in addition, a senior Honors project leading to an Honors
thesis. The thesis must be written under the supervision of a faculty member of the Department of Linguistics and with permission of a department advisor. Students may elect LING 495 and 496 when writing the Honors thesis (but are not required to do so).

## Major Profiles

The Department of Linguistics offers three sub-plans within the major. These are optional: no major is required to follow any sub-plan. They are offered for the benefit of those students who wish to have more structure in their major than is provided by the default option, which comprises the four core courses plus seven electives.

## Applied Linguistics and Second Language Learning and Teaching

The study of second/foreign language acquisition is a major focus of applied linguistics. Coursework in this area addresses both practical and theoretical issues. Although much of the emphasis in these courses is on teaching English as a Second Language (ESL), the principles and practices studied apply to instruction in any non-native language. A sequence of coursework in this area is especially useful for students interested in teaching ESL, particularly in international settings.

Students will have opportunities to meet faculty members and observe language courses in the language departments and at the English Language Institute, a principal center of second language instructional research and curriculum development.

Students following this major profile who seek a certificate* (issued upon graduation) stating that the student has completed a sequence of courses in this major area are required to take LING 350 and three approved courses (in addition to the four core courses required of all majors).

## *Note that this certificate is not legal certification in ESL for the public

 schools.
## Language and Mind

The language and mind profile introduces students to the multidisciplinary investigation of human language and the mind/brain. Research within this enterprise attempts to characterize the acquisition/development, origin, representation and processing of linguistic knowledge through both theoretical and empirical/experimental investigation. Specific topics include, but are not limited to, linguistic theory, psycholinguistics, cognition, perception, reasoning, and formal and computational models of linguistic knowledge and processes. The sub-plan focuses on the investigation both of universal aspects of human linguistic knowledge and of cognitive mechanisms that determine the observed diversity of human language.

This profile is also relevant for students who wish to pursue graduate study in linguistics; psychology; cognitive science; speech, language and hearing science; philosophy; education; computer science and artificial intelligence; and related fields. In addition, it is of direct interest to students with applied career goals in domains that utilize the knowledge base from this track: natural language processing by computers, human computer interaction, teaching and learning languages, literacy and the diagnosis and treatment of language disorders.

To follow this profile, students are advised to take 12 credits, chosen from an approved list of courses (see the Department's website for the list). It is recommended that students interested in this track take LING 209, Language and Human Mind, as one of their first courses.

## Linguistics for a Multicultural World

Courses in this profile focus on issues related to historical, sociocultural, and typological aspects of linguistics, particularly as these are relevant to multilingualism and multiculturalism. The sub-plan is designed to teach students to use the tools of linguistic inquiry to address questions of relationships among languages, cultures, and societies. Special attention is devoted to the emergence of global languages, particularly (nowadays) English. The courses in this track approach the study of language from a variety of perspectives and seek to equip students to become productive and informed citizens in an increasingly multicultural world.

Students who follow this profile are advised to take 12 credits, chosen from an approved list of courses (see the Department's website for the
list); we strongly recommend that LING 340, Introduction to Sociolinguistics, be one of these courses.

## Other Areas

Students interested in combining linguistics with work in a particular language should take courses dealing with the history and structure of that language. Such a major assumes the ability to use the spoken and written language; courses that focus on learning the languages (generally 100-and 200-level) will not count as part of the requirements for the major in linguistics.

Students interested in learning about issues in natural language and computation may combine courses in linguistics, philosophy, and computer science. These students may also choose to pursue a Double Major in Linguistics and either of these two fields.

Students interested in applying the methods of linguistic analysis to spoken English discourse and to written English texts can combine the study of linguistics with courses in historical or discourse analysis.

## Accelerated Program for Undergraduates (AB/BS and MSI)

The School of Information offers an accelerated joint program for exceptional Linguistics undergraduate majors at the University of Michigan. The program enables students in Linguistics to complete both a bachelor's degree and the two-year Master of Science in Information (MSI) degree in five years of study. The School of Information will select candidates for this program during their junior year. The bachelor's degree is normally awarded at the end of the senior year (the first year of study in the School of Information) and the MSI degree after completion of its requirements (normally after a second year of graduate study).

Students in the accelerated joint program must satisfy the normal requirements for both the Bachelors and the MSI programs; but any course they take that satisfies a requirement for the Bachelors degree and also satisfies a requirement for the MSI can be used to satisfy both requirements simultaneously. By taking 24 credits of courses that are "double-counted" in this fashion, it is possible to eliminate a year from the normal course of study. In particular, several designated courses taught in the School of Information and the Department of Linguistics satisfy requirements for both degrees. See the official list of courses for details.

To qualify for admission to the School of Information under the Accelerated Joint Program, students need to show that, given the double counting provision, they will be able to complete the LSA and Linguistics requirements for the Bachelors degree by the end of the fourth year, while also completing the usual first-year coursework for the MSI.

In addition, applicants for the accelerated joint program must show an academic record that is consistent with the demands of completing six years of course work in five years. This means that program applicants must be at or above the norm for the regular entering class at the School of Information, in terms of fit to the School, maturity, GPA, and GRE scores.

Further information can be found by visiting the School of Information, 300 West Hall, or SI's website [www.si.umich.edu]. Declared Linguistics majors who are interested in this program should consult with their Linguistics advisor as early as possible. An application to the School of Information is made in the fall academic term of the junior year and is reviewed as part of the regular admission process by the School of Information. Applicants will be notified of the School of Information's decision before the registration deadline in the winter academic term.

## Minor in Linguistics

A minor in Linguistics is not open to students with a major in the Department of Linguistics.

Many students in departments across campus develop an interest in language as they pursue their studies, and wish to learn more about the ways in which human language informs and defines human experience. Other career aspirations, however, make it difficult for them to have a full major in Linguistics. The minor in Linguistics is offered to these undergraduates who wish to enrich their education with extended study in the nature of human language. Such inquiry is regularly sought as a
support to the study of a specific language and its literature, as an adjunct to other aspects of developmental and cognitive psychology, or as a tools for majors in other cognate disciplines.

Students wishing to pursue a minor in Linguistics must develop a specific plan for its completion in consultation with a faculty member of the Undergraduate Committee of the Linguistics Department.

Prerequisites to the Minor. LING 209/PSYCH 242 or LING 210 or LING 212 or is a prerequisite for a linguistics minor, but does not count toward the minor.

Minor Program. 15 credits in Linguistics or in courses cross-listed with Linguistics, distributed as follows:

1. Linguistics core: Two courses chosen from LING 313, 315, and 316.
2. Linguistics electives: Nine credits in Linguistics, at the 300-level or above, chosen in consultation with, and approved by, the minor advisor.

## Lloyd Hall Scholars Program (LHSP)

Alice Crocker Lloyd Residence Hall
100 South Observatory
(734) 764-7521 (phone)
(734) 764-5312 (fax)
www.lsa.umich.edu/lhsp
e-mail: Ihsp@umich.edu
The Lloyd Hall Scholars Program (LHSP) is a first- and second-year livinglearning community focused on writing and the arts. Students from all academic disciplines are encouraged to participate in LHSP, take writing and studio arts classes, and engage in clubs, events, and publications related to writing and the creative arts.

Various clubs and co-curricular activities enhance the experiences of program members. LHSP sponsors guest writers and artists, theater and museum trips, a writer- or artist-in-residence, and a variety of student-led clubs, such as the Creative Writing Club, the Photography Club, and the Film Club. LHSP also hosts its own poetry prize, the Caldwell Poetry Award, and publishes View from the Hill, an LHSP arts and literary journal. As part of the Residence Education program, LHSP has access to numerous nonacademic activities, including field trips, community service projects, and multicultural programs. Leadership opportunities are available for secondyear students who want to stay involved in the program, become a mentor to first-year students, and live in Alice Lloyd Hall.

## Macromolecular Science and Engineering

3062C H.H. Dow Building
2300 Hayward Avenue
(734) 763-2316 (phone)
(734) 763-4788 (fax)
macromolecular.umich.edu
e-mail: macromolecular@umich.edu
Macromolecular Science and Engineering is an interdisciplinary graduate program that provides the academic and research basis for studies in the science and technology of synthetic and natural macromolecules. Such
large molecules exhibit unusual and specific properties as compared to small molecules and a large field has developed in unraveling the scientific foundations of this behavior, both in the synthetic and the biological areas.

The Program at U-M is one of the very few where students can achieve competence in both the traditional discipline of their choice and the interdisciplinary field of Macromolecular Science and Engineering. The faculty members are drawn from various departments, thus making the Program a truly cooperative and interdisciplinary endeavor.

# Mathematics 

2074 East Hall
530 Church Street
(734) 764-0335 (phone)
(734) 763-0937 (fax)
www.math.Isa.umich.edu
e-mail: math-undergrad-office@umich.edu
Mathematics is the language and tool of the sciences, a cultural phenomenon with a rich historical tradition, and a model of abstract reasoning. Historically, mathematical methods and thinking have been extraordinarily successful in physics and engineering. Today, they are used successfully in many new areas, from computer science to biology and finance. A Mathematics major provides a broad education in various areas of mathematics in a program flexible enough to accommodate a wide range of interests.

The study of mathematics is an excellent preparation for many careers; the patterns of careful logical reasoning and analytical problem solving essential to mathematics are also applicable in contexts where quantity and measurement play only minor roles. Thus students of mathematics may go on to excel in medicine, law, politics, or business as well as any of a vast range of scientific careers. Special programs are offered for those interested in teaching mathematics, in actuarial mathematics, the mathematics of insurance, or financial mathematics. The other programs split between those which emphasize mathematics as an independent discipline and those which favor the application of mathematical tools to problems in other fields. There is considerable overlap here, and any of these programs may serve as preparation for either further study in a variety of academic disciplines, including mathematics itself, or intellectually challenging careers in a wide variety of corporate and governmental settings.

Special Departmental Policies. All prerequisite courses must be satisfied with a grade of C- or above. Students with lower grades in prerequisite courses must receive special permission of the instructor to enroll in subsequent courses.

Minimum number of courses taken in residence for transfer students majoring in Mathematics (applies to all sub-plans) Effective Fall 2015: Students should take a minimum of 18 credits at the University of Michigan, Ann Arbor campus. Six of these credits must come from the basic courses and nine from the core courses and/or cognate courses. The 18 credits may include pre-requisites taken in Math.

## Mathematics

May be elected as a departmental major
For detailed requirements on the Mathematics Major consult the brochure Undergraduate Programs \& Courses-Department of Mathematics available from the Undergraduate Program Office, 2084 East Hall, (734) 763-4223, or the department's website
[www.math.Isa.umich.edu/undergrad/].
Prerequisites to the Major. Most programs require completion of one of the sequences ending with MATH 215\&217, 256\&217, 285\&217, or 295\&296. A working knowledge of a high-level computer language such as C++ or a computer algebra system (such as Maple or Mathematica), at a level equivalent to completion of a course of three or more credits, and eight credits of PHYSICS, preferably PHYSICS 140/141 and 240/241, are recommended for all programs and required for some. (A grade of $C$ - or better is strongly suggested for MATH 217.)

Majors. A student considering a major in Mathematics should consult a mathematics department advisor in the Undergraduate Mathematics Office as early as possible and certainly by the end of the sophomore year. The department offers many different submajors with varying requirements; failure to meet some of these at the intended time may
delay completion of the program and graduation. A major must be designed with and approved by a department advisor.

Field of major and GPA calculation. For purposes of calculating grade point average, the term "field of the major" means the following:

1. All MATH courses.
2. All courses used to meet requirements for the major.
3. All required cognate courses (if any).
4. All mandatory prerequisites.
5. EECS 183
6. ECON 101, and ECON 102 (Actuarial and Financial Math only).

Advising. Students are strongly urged to consult with a department advisor each term before selecting courses for the following term. Appointments may be scheduled on-line at:
www.math.Isa.umich.edu/undergrad/

## Pure Mathematics

The Pure Mathematics Program is designed to provide broad training in basic modern mathematics including an introduction to the methods of rigorous mathematical proof and exposure to the major areas: Algebra, Analysis, and Geometry/Topology.

All Pure Mathematics majors are also strongly encouraged to take PHYSICS 140-141 and 240-241 and to acquire a working knowledge of a high-level computer language (e.g., Fortran, C, or $\mathrm{C}++$ ) at a level equivalent to the completion of EECS 183.
a. Four basic courses (one course from each of the following four groups), completed with a grade of at least C-:
Modern Algebra: MATH 412 or 493 (or prior to Fall 2012, 512)
Differential Equations: MATH 256, 286, or 316
Analysis: MATH 351 or 451
Geometry/Topology: MATH 433, 490, or 590
b. Four elective courses (mathematics) chosen from a list of approved electives and approved by a department advisor.
c. One cognate course outside the Mathematics Department, but with advanced mathematical content.

## Mathematical Sciences Program

Prerequisites to submajor. Completion of one of the following sequences ending with MATH 215\&217, 256\&217, 285\&217, or 295\&296. Students who have completed one of the sequences $255 \& 256$ or $285 \& 286$ may substitute MATH 513 for MATH 217. In addition, students must acquire a working knowledge of a high-level computer language (e.g., Fortran, C, or $(++)$ at a level equivalent to the completion of EECS 183; and the Introductory Biology sequence (BIOLOGY 171-172). For those not pursuing either a Physics major or minor, PHYSICS 140/141 and 240/241 are required for the Numerical and Mathematical Physics options and strongly recommended for the other options. Some of the options have additional requirements as noted below.
Submajor. The Mathematical Sciences Program is designed to provide broad training in basic mathematics together with some specialization in an area of application of mathematics. Each student must select one of the eight Program Options as a special area.
a. Four basic courses (one course from each of the following four groups), completed with a grade of at least C-:
Differential Equations: MATH 256, 286, or 316
Discrete Math/Modern Algebra: MATH 312, 412, 465, or 493 (or prior to Fall 2012, 512)
Analysis: MATH 351, 354, 450, 451, or 454
Probability: MATH 425 or 525
b. At least three courses from ONE of the Program Options listed below (the list of possible electives for each option is given on the departmental website: www.math.Isa.umich.edu/undergrad):

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Discrete and Algorithmic Methods
Numerical and Applied Analysis
Operations Research and Modeling
Probabilistic Methods
Mathematical Economics
Control Systems
Mathematical Physics
Mathematical Biology
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c. Two additional advanced mathematics (or related) courses, approved by a department advisor
d. At least two of the courses in $b$ and $c$ must be MATH courses.

## Honors Mathematics

Outstanding students may elect an Honors plan in Mathematics. The Honors Program is designed not only for students who expect to become mathematicians but also for students whose ultimate professional goal lies elsewhere (e.g., in the humanities, law, ...).

Students intending an Honors plan are strongly advised to take one of the Honors introductory sequences MATH 156-256, 175-286, 185-286, or 295396, or some combination of these four. The sequence MATH 295-396 is very theoretical. Eight credits of PHYSICS and familiarity with a high-level computer language are strongly recommended.

The Honors plan program must include at least nine courses: (A) four basic courses, (B) four elective courses, and (C) one cognate course as described below.
A. The basic courses consist of one from each of groups $1,2,3$, and 4 or groups 1, 2, 5, 6 below, completed with a grade of at least C-:

1. Linear Algebra: MATH 420 or 513
2. Analysis: MATH 451
3. Modern Algebra: MATH 493 (or prior to Fall 2012, 512)
4. Geometry/Topology: MATH 433, 490, or 590
5. Probability: MATH 525
6. Differential Equations: MATH 404, 454, 556, 557, or 558

Students who complete MATH 295\&296, with a grade of at least a Care exempt from MATH 451. Students who complete MATH 295\&395, with a grade of at least a C- are exempt from MATH 420.
B. The four elective courses must be chosen in consultation with an Honors advisor to provide a cohesive program which explores an area of mathematics in some depth. There is a good deal of freedom allowed here, but a random selection of courses will not satisfy this requirement. The courses should be chosen from the approved list or have a course number 600 or above. MATH 289 is a repeatable onecredit course and can be used to satisfy the elective requirement only if taken for a total of three credits. A Mathematics Honors advisor may approve another mathematics course or a course from another department with advanced mathematical content as one of these elective courses. The Mathematics Honors advisor may ask that the student arrange supplemental work in a given class to conform to expectations for an Honors elective. A student electing to satisfy Requirement $A$ by choosing courses from groups 1, 2, 5, and 6 must complete a course in Complex Analysis (MATH 555 or 596) as one of his/her electives.
C. One cognate course from outside the Mathematics department, but containing significant mathematical content, chosen with the approval of the Honors advisor.

Students who, in the judgment of the Departmental Honors Committee, have completed an Honors plan with distinction are granted a citation upon graduating. Interested students should discuss their program and the specific requirements for obtaining the citation with a Mathematics Honors advisor (appointments scheduled at:
www.math.Isa.umich.edu/undergrad/) no later than the second term of their sophomore year.

## Actuarial Mathematics

The Actuarial Mathematics Program is designed to provide broad training in the basic mathematics underlying the operations of private and social insurance and employee benefit plans. The courses are organized to assist the student to prepare for several of the examinations of the Casualty Actuarial Society and the Society of Actuaries. Non-credit review classes for some of the professional actuarial examinations are organized each term; ask your actuarial advisor about the time and place of these classes. It is strongly recommended that some of these exams be passed before graduation. Summer internships are an important component of the educational program and students are strongly encouraged to seek an internship no later than the conclusion of their junior year. Students are encouraged to take either MATH 422 or 427 to satisfy their upper-level writing requirement.

Prerequisites to the submajor: MATH 215\&217, MATH 255\&217, MATH 285\&217 or MATH 295\&296. Each student must also complete: ECON 101 and 102 and EECS 183 all elected on a graded basis. The grade for ECON 101, ECON 102 and EECS 183 will be included in the GPA in the major.
Requirements for the submajor. A minimum of 11 courses, selected from the following:
A. Four basic courses (one from each of the following four groups), completed with a grade of at least C-:

- Differential Equations: MATH 216, 256, 286, or 316
- Probability: MATH 425
- Statistics: STATS 426
- Finance: MATH 423
B. Five special courses for Actuarial Mathematics: MATH 424, MATH 520 and 521 (or 522), MATH 523 and 524.
C. Two additional courses in areas relating to Actuarial approved by an advisor.


## Mathematics of Finance and Risk Management (Financial Mathematics)

The program in Mathematics of Finance and Risk Management (or Financial Mathematics for short) is designed to provide a broad education in the quantitative aspects of risk management and finance. Financial instruments which are engineered today require sophisticated mathematical techniques for their valuation. These techniques come from the fields of probability, statistics and differential equations.

Prerequisites to the submajor: MATH 215\&217, MATH 255\&217, MATH 285\&217 or MATH 295\&296. Each student must also complete: ECON 101 and 102 and EECS 183 all elected on a graded basis. The grade for ECON 101, ECON 102 and EECS 183 will be included in the GPA in the major.

## Requirements for the submajor

A. Four basic courses (one from each of the following four groups), completed with a grade of at least $\mathrm{C}-$ :

1. Differential Equations: MATH 216, 256, 286, or 316
2. Probability: MATH 425
3. Statistics: STATS 426
4. Finance: MATH 423
B. Four special courses for Financial Mathematics: MATH 451, MATH 472 (or 471), MATH 525, MATH 526.
C. Two additional courses in areas relating to Financial Mathematics approved by an advisor.

## Secondary Mathematics Teaching Certificate

## Updated 1/27/2016 - Fall 2016

The Teaching Certificate program is designed to provide the broad training in mathematics necessary to be a successful teacher of mathematics at the secondary level, grades 6-12. The requirements for a secondary teaching certificate with a major in mathematics may be met while earning a degree from the College of Literature, Science, and the Arts (A.B. or B.S.) or from the School Education (A.B. Ed. or B.S. Ed.). Requirements for the major are
identical for all of these degrees, although LSA and Education have somewhat differing language and distribution requirements. LSA degree candidates must earn at least 100 LSA credits and at least 30 Education credits. Please note that the LSA B.S. degree requires 60 credits in physical and natural science and mathematics; students with less than 60 credits may be eligible for an A.B. degree.

Appointments with the Mathematics Department teaching certificate advisor may be scheduled online at:
www.math.Isa.umich.edu/undergrad
For information specific to the School of Education, students should contact:

The School of Education Teacher Education Office
1228 SEB
(734) 615-1528
te.program@umich.edu
www.soe.umich.edu/academics
It is essential that students planning to obtain a teaching certificate consult a teaching certificate advisor, either in Mathematics or Education, prior to the end of the $1^{\text {st }}$ term of their sophomore year.

Prerequisites: One of the pair of courses MATH 215\&217, MATH 255\&217, MATH 285\&217, or MATH 295\&296. Additionally, students must complete one term of computer programming, EECS 183 or equivalent.

Every candidate for a teaching certificate must take one course from each of the following five groups (chosen with the approval of a teaching certificate advisor) and completed with a grade of at least a C-:

1. Modern Algebra/Number Theory: MATH 487 or 475
2. Geometry: MATH 431 or 531
3. Probability: MATH 425 or 525
4. Analysis: MATH 351 or 451
5. Secondary Mathematics: MATH 486

The program requires ten specific Education courses, listed below, totaling 30 credits. These are elected in the junior and senior years in a specified order. Consult with the School of Education for the order and timing of these courses.

- Methods of Teaching Mathematics (or minor field): EDUC 413 (3 credits)
- Practicum in Teaching Methods: EDUC 3071 and 307 II (4 credits)
- Educational Psychology: EDUC 391 (3 credits)
- Reading and Writing: EDUC 402 ( 3 credits)
- Education in a Multi-cultural Society: EDUC 392 (3 credits)
- Directed Teaching: EDUC 302 (10 credits)
- Problems and Principles of Secondary Education: EDUC 304 (2 credits)
- Teaching with Digital Technologies 6-12: EDUC 446 (1 credit)
- Teaching Students with Exceptionalities in the General Education Middle and High School Classroom: EDUC 445 (1 credit)

The last four of these are to be elected concurrently. Students must apply for admission to the certification program by January 15 of their sophomore year. Application forms are available at the School of Education.

Additionally, every student must successfully complete:

- an introductory course in psychology (not PSYCH 112) that is to be taken before EDUC 391, and
- Michigan's licensure requirements (see www.soe.umich.edu/licensure_in_michigan/).

Every Teaching Certificate student must present a SOE major or SOE minor in another academic field. This normally requires 20-24 credits in a structured program in an area other than mathematics. Consult the Bulletin of the School of Education for acceptable programs.

## Mathematics Minor

A minor in Mathematics is not open to students with any major in Mathematics. However, a student who graduated with a minor in Mathematics may return to complete a major in Mathematics. The additional course work used to satisfy the requirements of the major must include 12 in residence, upper-level credit hours.

The minor in Mathematics is designed to enable a student with a significant interest in Mathematics to deepen his/her knowledge while pursuing a major in another field. While the major will often be in a field that makes significant use of mathematics, such as a science or a quantitative social science, it may be in any area of study.

Students wishing to pursue a minor in Mathematics must develop a specific plan for its completion in consultation with an advisor. Appointments are scheduled on-line at:
www.math.Isa.umich.edu/undergrad/
Prerequisites to the Minor: One of the sequences MATH 115\&116, 175\&176, 185\&186, or 295\&296; or MATH 156. These all provide a thorough grounding in the calculus of functions of one variable. Advanced Placement credits in MATH 120 and 121 also meet the prerequisite requirement.

Requirements for the Minor: 15-18 credits of courses, including either two courses from category A and three courses from category B, or one course from category A and four courses from category B. No more than one course may be elected from each of the three areas of category A . The courses in category B must be selected from exactly two of the six listed areas. A student planning to take linear algebra and differential equations should note that not all of MATH 215, 216, and 217 will count toward the minor, whereas all of MATH 215, 217, and 316 will.

All courses for the minor program must be completed with a grade of at least a C-.

Category A: Second-year courses:

- Multivariable Calculus: MATH 215, 255, or 285
- Linear Algebra: MATH 214, 217, 417, or 419
- Differential Equations: MATH 216, 256, or 286

Category B: Upper-level courses:

- Analysis/Differential Equations: MATH 316, 351, 354, 404, 450, 451, 452, 454, 555
- Algebra/Number Theory: MATH 312, 389, 412, 420, 475, 493 (or prior to Fall 2012, 512), 513, 561, 575
- Geometry/Topology: MATH 433, 490, 531
- Applied Mathematics: MATH 354, 371, 404, 423, 425, 450, 454, 462, 463, 471, 472, 550, 563
- Discrete Mathematics: MATH 310, 312, 389, 412, 416, 425, 465, 475, 481, 493 (or prior to Fall 2012, 512), 561, 566, 567, 582
- Financial/Actuarial Mathematics: MATH 423, 424, 520, 523, 524


# Program in Microbiology 

Biology Undergraduate Office
1111 E.H. Kraus Natural Science Building
830 North University Avenue
(734) 764-2446 (phone)
(734) 647-0884 (fax)
www.Isa.umich.edu/mcdb

Microbiology and Immunology (Graduate Program)
U-M Medical School
5641 Medical Science Building, II
1150 West Medical Center Drive
(734) 763-3531 (phone)
(734) 764-3562 (fax)
www.med.umich.edu/microbio

Microbiology is an Interdepartmental Program supervised by the Microbiology Major Committee, with academic support provided by the Program in Biology. Participating units include the Departments of Ecology and Evolutionary Biology (EEB) and Molecular, Cellular, and Developmental Biology (MCDB) in LSA; the Epidemiology Department in the School of Public Health; and the Departments of Microbiology \& Immunology and Internal Medicine in the Medical School.

## Microbiology (B.S.)

May be elected as an interdepartmental major, supervised by the Microbiology Major Committee

Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)
Exclusions: Students who elect a major in Microbiology may not elect the following majors: Biology; General Biology; Cell and Molecular Biology; Ecology and Evolutionary Biology; Plant Biology; Biochemistry; Biomolecular Science; or Neuroscience. They may also not elect a minor in Biology; Ecology and Evolutionary Biology; Plant Biology; Chemistry; or Biochemistry.

Microbiology includes the study of viruses, algae, bacteria, protozoa, and fungi. Immunobiology is also included within the science of microbiology. A major in microbiology prepares students for graduate study in microbiology, biochemistry, agricultural science, and food science as well as for study in other areas of biology which emphasize cellular structures and their function. A bachelor's degree in microbiology may qualify students for entry-level positions in medical, industrial, or governmental laboratories.

Students intending to go to graduate school should have at least two terms of research experience. These can appear as graded courses, UROP participation, or be independent of the graded curriculum. Most graduate school-bound students will have 1-2 graded research courses (2-4 credits/each) on record. Students intending to go to graduate school will need research experience as well as two terms of Calculus and two terms of Physics. Students intending to go to medical school will need to take two terms of Physics and CHEM 230.

## Prerequisites to the Major.

- BIOLOGY 171, 172/174, and 173; or

BIOLOGY 195; or
BIOLOGY 162 or 163

- CHEM 210/211 and 215/216
- PHYSICS 125/127 and 126/128; or

PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241.
The PHYSICS 135/136 and 235/236 or 140/141 and 240/241 sequence is recommended for students interested in an Honors plan and for those who anticipate graduate work in the field of microbiology.

- Quantitative Analysis 1: MATH 115, 120, 175, 185, or 295
- Quantitative Analysis 2: One of
o BIOLOGY 202
o MATH 116, 121, 156 (retroactive to Fall 2008), 255, 176, 186, or 296
o STATS 250; 400-level or above
o BIOPHYS 290 / PHYSICS 290
o EECS 203 or 280
o EARTH 468
o Any other course with a MATH 115 prerequisite chosen in consultation with a major advisor
[Note: any course used to meet this requirement cannot also be used as a major elective, i.e., a course cannot "double count".]


## Requirements for the Major

1. Core:
a. Microbiology: BIOLOGY 207.
b. Genetics: BIOLOGY 305.
c. Biochemistry: one of MCDB 310 or BIOLCHEM 415 or CHEM 351 .
d. Advanced laboratory: MCDB 306, 429, or BIOLCHEM 416.
2. Upper-Level Requirements (minimum 19 credits). A minimum of eleven credits must be selected from Groups 1 and 2 which must include at least two courses from Group 1 and one course from Group 2. The remaining eight credits may be selected from Groups 1, 2, or 3.
A. Group 1 - Microbial Genetics, Physiology, Cellular

Biology, Diversity and Ecology (select at least two courses):
MCDB 401 (appropriate sections only), 415, 432, 437, 444, 489
EEB 315, 446, 468, 470
MICRBIOL 320, 430, 460
INTMED 320, 460
B. Group 2 - Microbial Pathogenesis, General Virology \& Immunology (select at least one course)
MICRBIOL 405, 415
EPID 460
MCDB 436 or MICRBIOL 440/IMMUNO 440 (only one of these will count toward the major).
C. Group 3 - Advanced Electives. A maximum of eight credits from the courses listed below may be applied toward a Microbiology major.
i. Advanced Biochemistry, Molecular Biology, Cellular Biology: MCDB 427, 428
MCDB 411 or CHEM 452.
ii. Ecology:

EEB 476, 483.
iii. Epidemiology:

EPID 504, 505, 507, or 525
iv. Microbiology \& Immunology:

Any MICRBIOL course at the 500-level or higher (with approval of advisor).
v. Advanced Mathematics:

Any course with a MATH 116 prerequisite.
vi. Statistics:

Any STATS course at the 400-level or above.
vii. Research:

- MICRBIOL 399
- EPID 399 ( $2^{\text {nd }}$ term)
- EEB 400
- MCDB 400 (maximum of 3 credits)
- INTMED 499 ( $2^{\text {nd }}$ term)

Note: A maximum of 3 credits of independent research can be applied to the major. A course must be taken for a minimum of two credits and completed in a single term to count as an elective course.
Other courses with permission of advisor.
Field of major. For purposes of calculating grade point average, the term "field of major" means the following:

1. All mandatory prerequisites.
2. All courses from participating departments (BIOLOGY, EEB, MCDB, MICRBIOL, INTMED, and EPID)
3. Any other course used to satisfy requirements for the major.

Advising. Students are advised by a combination of Undergraduate Biology Office staff and faculty department advisors. Advising topics include investigating majors, declaring a major, course planning, research and honors, major releases, graduate school and career advice. Students who are interested in the Microbiology major should consult a general advisor during the freshman year, and are strongly encouraged to meet with a department advisor early in their academic career, but no later than the second term of their sophomore year. It is not necessary to complete every prerequisite before declaring a major. To make an appointment, go to the Program in Biology website at: www.lsa.umich.edu/biology.

Honors Plan. The Microbiology B.S. degree is the basis for the Honors degree in Microbiology. Students must elect two terms of independent research, maintain a GPA in the major of 3.4, complete an Honors thesis, and give a research presentation based on their Honors work. Prior to applying to the Microbiology Honors plan, students must identify a research mentor in one of the participating departments. Students may conduct Honors research with faculty in other units on the University of Michigan campus, but must have a formal co-sponsor relationship with a research track or tenure-track faculty in one of the participating departments. Students apply to the Honors Program in Microbiology by submitting a research proposal along with a letter from the research mentor indicating their willingness to sponsor the student's research.

## Using non-LSA coursework in the Microbiology major.

Epidemiology (EPID) courses are offered under the School of Public Health. Microbiology \& Immunology (MICRBIOL) courses are offered by the Medical School. These and any other external courses not cross-listed through an LSA department (including some BIOLCHEM offerings) count as non-LSA course work (see "Non-LSA Course Work" on the LSA website). Majors may elect 20 credits of non-LSA course work in the minimum 120 required for an A.B. or B.S. degree. See an advisor with questions about your non-LSA elections.

## Microbiology and Immunology

Microbiology and Immunology U-M Medical School
5641 Medical Science Building, II
1150 West Medical Center Drive
(734) 763-3531 (phone)
(734) 764-3562 (fax)
medicine.umich.edu/dept/microbiology-immunology
Undergraduates may pursue Microbiology through a major offered by the Interdepartmental Program in Microbiology.

The Department of Microbiology and Immunology (Medical School) is a participating unit in the interdepartmental Microbiology major listed under Microbiology.

# Center for Middle Eastern and North African Studies (MENAS) 

Center for Middle Eastern and North African Studies (MENAS)<br>1080 South University Avenue, Suite 3603<br>(734) 764-0350 (phone)<br>(734) 936-0996 (fax)<br>www.ii.umich.edu/cmenas<br>e-mail: cmenas@umich.edu

The Middle East and North Africa together constitute a highly diverse cultural area within a world now undergoing rapid and large-scale change. In this context, the mission of the Center for Middle Eastern and North African Studies (CMENAS) is to enhance awareness of the peoples, cultures, and languages in this vitally important region of the world. The Center for Middle Eastern and North African Studies (CMENAS) is a nationally-recognized U.S. Department of Education supported National Resource Center The Center for Middle Eastern and North African Studies is a unit of the International Institute within the University of Michigan.

CMENAS offers an undergraduate major and a minor in Modern Middle Eastern and North African Studies. It also offers a general interdisciplinary Master of Arts program in Modern Middle Eastern and North African Studies. available to meet with undeclared students who would like to learn more about the program, and also with current majors and minors who would like to discuss course selection, degree requirements, major/minor releases, and other matters of concern. Appointments can be made through our online appointment calendar by clicking on: meet with an advisor. Information on all of our undergraduate programs and Walk-In Advising hours can also be found on our website: here. The International Institute's Undergraduate Advising Office is currently located at 1080 South University Avenue, Suite 2660.

## Middle Eastern and North African Studies

Updated 7/1/2015, effective Fall 2015
Updated 12/15/2015, effective Fall 2016

## May be elected as an area major

Not open to those who elect a major in Near Eastern Studies
The Center for Middle Eastern and North African Studies offers a multidisciplinary area major to students who want to obtain a broad background on the modern Middle East and North Africa.

Prerequisites to the Major. One of the following first-year language sequences or the equivalent:

- Arabic: ARABIC 101 and 102
- Armenian: ARMENIAN 101 and 102
- Hebrew: HEBREW 101 and 102
- Persian: PERSIAN 101 and 102
- Turkish: TURKISH 101 and 102

Strongly Recommended:

- NEAREAST 100 (Peoples of the Middle East)
- NEAREAST 216 / RELIGION 204 (Introduction to Islam)

Requirements for the Major. A minimum of 30 credits at the 200-level and above, chosen in consultation with, and approved by, the undergraduate department advisor.
The courses chosen must include:

1. Core Courses
a. MENAS 493

Islamic Studies Program (ISP)<br>1080 South University Avenue, Suite 2626<br>(734) 936-2777 (phone)<br>(734) 763-9154 (fax)<br>www.ii.umich.edu/isp<br>e-mail: IslamicStudies@umich.edu

The University of Michigan has extraordinary depth in scholarship and instruction dealing with Islam as a world religion and the study of Muslim peoples and societies. Over 50 faculty members from a wide array of departments and professional schools are currently engaged in work related to these topics. The study of Islam and Muslim societies at U-M is not confined to a few highly specialized departments, but is part of the University's mainstream.

The Islamic Studies Program (ISP) builds on and mobilizes this outstanding faculty to contribute to instruction, research, and public affairs programming. The ISP is designed to establish the University of Michigan as a national leader in the field of Islamic Studies, benefiting undergraduate and graduate students and faculty.

The ISP supports projects that enhance research and teaching related to Islam, Islamic societies, and Muslim diasporas in the West. In particular, it encourages collaborative, interdisciplinary work that explores interregional and global contexts in which Islam plays a dynamic role.
b. One 300 or 400-level, advisor approved, course in Anthropology, Sociology, or Women's Studies
c. HISTORY 443 and one additional 300 or 400 -level, advisor approved, course in pre-1800 Middle East history
d. Political Science, any one of the following:

POLSCI 351, 352, 353.
2. MENAS Language Requirement for the Major. One year of the following languages beyond the first year: Arabic, Armenian, Hebrew, Persian, or Turkish.
3. Electives. Two approved electives, selected in consultation with the advisor, with appropriate Middle East content.

Honors Plan. Special arrangements are made for qualified students to elect an Honors plan. Candidates for an Honors plan undertake independent research which is reported in a senior Honors thesis. Prospective Honors majors should consult with the Honors department advisor before the end of the junior year and should enroll in one of the senior Honors thesis courses approved by the advisor.

## Minors

## Modern Middle Eastern and North African Studies

A minor in Modern Middle Eastern and North African Studies is not open to students with a major in Middle Eastern and North African Studies or a major or minor in the Department of Near Eastern Studies.

The Center for Middle Eastern and North African Studies offers an interdisciplinary minor to students who wish to gain insight into the political, economic, and social issues affecting the Middle East and North African, and who wish to achieve an understanding of the region's history and culture. Emphasis in this minor is on the modern Middle East and North Africa.

Prerequisites to the Minor: ACABS 200 / AAPTIS 200 / HJCS 200, Introduction to World Religions: Near East.

Requirements for the Minor: At least 15 credits of courses, chosen in consultation with and approved by advisor:

1. A 400-level history course
2. A 400-level social science course in either Anthropology, Political Science, or Sociology

## 3. MENAS 493.

Courses must be distributed over three of the following disciplines: $3^{\text {rd }}$ year of middle eastern language, anthropology, history, history of art, middle eastern literature, political science, religion, sociology, or women's studies.

Constraints: At least one half of the courses counting toward the minor must be taken at the UM-Ann Arbor campus. Elementary and intermediate-level language courses in Arabic, Armenian, Persian, and Turkish may not count toward the minor.

No course may be used to satisfy the requirements of more than one minor.

## Islamic Studies

The Islamic Studies Program (ISP) offers an interdisciplinary academic minor to students who wish to
a. better understand the history and culture of the Islamic religion and Muslim societies and
b. gain insight into the political, economic, and social transitions taking place in this field.

This is the only academic program at U-M whose focus is solely on Islam. The focus of this academic minor is not restricted to a single world region and does not have any prerequisites.

Prerequisites to the Minor: None.
Requirements for the Minor: At least 16 credits, selected in consultation with and approved by the ISP undergraduate academic advisor, from the following.

1. AAPTIS 262 (Introduction to Islam)
2. Four additional courses on Islam or on Muslim societies
-At least two courses which must be 300-level or above
-At least two 3-credit courses covering two of the following regions:
Central Asia
East and Southeast Asia
Europe and the Americas
South Asia
Middle East and North Africa
Sub-Saharan Africa
General Islamic Studies: without specific regional focus

- AAPTIS 285 / HISTART 285 Islamic Visual Culture
- AAPTIS 361 Jihad in History
- AAPTIS 462 / HISTORY 428 The Rise of Islam
- AAPTIS 465 / RELIGION 465 Islamic Mysticism
- AAPTIS 467 / HISTORY 487 / RELIGION 467 Shi'ism: The History of Messianism and the Pursuit of Justice in Islamdom
- AAPTIS 495 / HISTORY 429 / RELIGION 496 / WOMENSTD 471 Gender \& Sexuality in Pre-Modern Islam
- AAPTIS 567 Readings in Classical Islamic Texts
- HISTORY 243 / MENAS 243 Islamic World History
- HISTORY 428 / AAPTIS 462 The Rise of Islam
- HISTORY 429 / AAPTIS 495 / RELIGION 496 / WOMENSTD 471 Gender \& Sexuality in Pre-Modern Islam
- HISTORY 487 / AAPTIS 467 / RELIGION 467 Shi'ism: The History of Messianism and the Pursuit of Justice in Islamdom
- HISTART 285 / AAPTIS 285 Islamic Visual Culture
- MENAS 243 / HISTORY 243 Islamic World History
- MUSICOL 343 Music and Islam
- NEAREAST 262 / RELIGION 204 Introduction to Islam
- NEAREAST 322 / RELIGION 363 The Qur'an and Its Interpretations
- NEAREAST 323 The Prophet Muhammad in Islam
- NEAREAST 423 Islamic Law
- NEAREAST 424 Islamic Intellectual History
- REEES 490 / SOC 490 / WOMENSTD 492 Women \& Islam
- RELIGION 204 / AAPTIS 262 Introduction to Islam
- RELIGION 363 / AAPTIS 363 The Qur'an and Its Interpretations
- RELIGION 465 / AAPTIS 465 Islamic Mysticism
- RELIGION 467 / AAPTIS 467 / HISTORY 487 Shi'ism: The History of Messianism and the Pursuit of Justice in Islamdom
- RELIGION 496 / AAPTIS 495 / HISTORY 429 / WOMENSTD 471 Gender \& Sexuality in Pre-Modern Islam
- SOC 490 / REEES 490 / WOMENSTD 492 Women \& Islam
- WOMENSTD 471 / AAPTIS 495 / HISTORY 429 / RELIGION 496 Gender \& Sexuality in Pre-Modern Islam
- WOMENSTD 492 / SOC 490 / REEES 490 Women \& Islam


## Middle East \& North Africa

- AAPTIS 339 Turkey: Language, Culture, Society between East and West
- AAPTIS 368 / AMCULT 368 / WOMENSTD 368 Women and War in the Middle East
- AAPTIS 381 Introduction to Arabic Literature in Translation
- AAPTIS 459 Ottoman Turkish Culture
- AAPTIS 461 / HISTORY 442 The First Millennium of the Islamic Near East
- AAPTIS 487 / HISTORY 443 Modern Middle Eastern History
- AMCULT 368 / AAPTIS 368 / WOMENSTD 368 Women and War in the Middle East
- ANTHRCUL 409 Peoples and Cultures of the Near East \& North Africa
- GTBOOKS 296 / AAPTIS 296 Great Books of the Middle East
- HISTORY 290 / AAPTIS 287 / JUDAIC 290 Jews and Muslims
- HISTORY 306 / AAPTIS 341 History of the Ottoman Empire: The "Classical Age", (ca. 1300-1600)
- HISTORY 335 The Ottoman Enterprise
- HISTORY 442 / AAPTIS 461 The First Millennium of the Islamic Near East
- HISTORY 443 / AAPTIS 487 Modern Middle Eastern History
- JUDAIC 290 / AAPTIS 287 / HISTORY 290 Jews and Muslims
- NEAREAST 219 / GTBOOKS 296 Great Books of the Middle East
- NEAREAST 287 / HISTORY 290 / JUDAIC 290 Jews and Muslims
- NEAREAST 315 Introduction to Arab Culture: Race, Ethnicity and Gender Issues
- NEAREAST 319 / HISTORY 306 History of the Ottoman Empire: The "Classical Age", (ca. 1300-1600)
- NEAREAST 320 / HISTORY 307 History of the Ottoman Empire: The "Post-Classical Age", (ca. 1600-1922)
- WOMENSTD 368 / AAPTIS 368 / AMCULT 368 Women and War in the Middle East

Sub-Saharan Africa. Topics courses as approve by the ISP advisor

## South Asia

- AAPTIS 325 / HISTORY 325 / ASIAN 324 / RELIGION 325 The History of Islam in South Asia
- ASIAN 324 / HISTORY 325 / AAPTIS 325 / RELIGION 325 The History of Islam in South Asia
- HISTORY 325 / AAPTIS 325 / ASIAN 324 / RELIGION 325 The History of Islam in South Asia
- RELIGION 325 / HISTORY 325 / AAPTIS 325 / ASIAN 324 The History of Islam in South Asia


## East and Southeast Asia

- ASIAN 464 / HISTORY 470 / RELIGION 464 From Mystic Saints to Holy Warriors: Islam in Southeast Asia
- HISTORY 470 / ASIAN 464 / RELIGION 464 From Mystic Saints to Holy Warriors: Islam in Southeast Asia
- RELIGION 464 / ASIAN 464 / HISTORY 470 From Mystic Saints to Holy Warriors: Islam in Southeast Asia


## Central Asia

- AAPTIS 340 / HISTORY 340 / ASIAN 340 / MENAS 340 / REEES 340 From Genghis Khan to the Taliban: Modern Central Asia
- ASIAN 340 / HISTORY 340 / AAPTIS 340 / MENAS 340 / REEES 340 From Genghis Khan to the Taliban: Modern Central Asia
- HISTORY 340 / AAPTIS 340 / ASIAN 340 / MENAS 340 / REEES 340 From Genghis Khan to the Taliban: Modern Central Asia
- MENAS 340 / HISTORY 340 / AAPTIS 340 / ASIAN 340 / REEES 340 From Genghis Khan to the Taliban: Modern Central Asia
- REEES 340 / HISTORY 340 / AAPTIS 340 / ASIAN 340 / MENAS 340 From Genghis Khan to the Taliban: Modern Central Asia
- RUSSIAN 358 Central Asia through Russian Eyes: Cultural Appropriation of an Exotic Land


## Europe \& the Americas

- AAPTIS 210 / AMCULT 215 / ARABAM 215 Introduction to ArabAmerican Studies
- AAPTIS 335 / AAS 335 / RELIGION 310 African-American Religion between Christianity and Islam
- AAS 335 / AAPTIS 335 / RELIGION 310 African-American Religion between Christianity and Islam
- AMCULT 215 / ARABAM 215 / AAPTIS 210 Introduction to ArabAmerican Studies
- AMCULT 235 / ARABAM 235 / WOMENSTD 235 From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
- AMCULT 236 / ARABAM 236 Muslims in America
- ARABAM 215 / AMCULT 215 / AAPTIS 210 Introduction to ArabAmerican Studies
- ARABAM 235 / AMCULT 235 / WOMENSTD 235 From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
- ARABAM 236 / AMCULT 236 Muslims in America
- HISTORY 324 Muslims and Contemporary Europe
- RELIGION 310 / AAPTIS 335 / AAS 335 African-American Religion between Christianity and Islam
- WOMENSTD 235 / AMCULT 235 From Harems to Terrorists: Representing the Middle East in Hollywood Cinema

Constraints. At least twelve of the sixteen required credits for the minor must be elected at the University of Michigan or at an overseas program associated with U-M. Language courses may not be counted toward the minor.

# Molecular, Cellular, and Developmental Biology (MCDB) 

1121 E.H. Kraus Natural Science Building
830 North University Avenue
(734) 764-2446 (phone)
(734) 647-0884 (fax)
www.Isa.umich.edu/mcdb
Majors. The department offers majors in Cell and Molecular Biology (CMB) and a CMB-Biomedical Engineering joint B.S. and M.S. program. Students interested in majors in Biology or General Biology or the minor in Biology should refer to information listed under the Program in Biology. Students interested in the major in Neuroscience or Microbiology should refer to the information listed under the Program in Neuroscience or the Program in Microbiology.

Advising. Students are advised by a combination of Undergraduate Biology Office staff and faculty department advisors. Advising topics include investigating majors, declaring a major, course planning, research and honors, major releases, graduate school and career advice. Students who are interested in the CMB majors or minors should consult a general advisor during the freshman year, and are strongly encouraged to meet with a department advisor early in their academic career, but no later than the second term of their sophomore year. It is not necessary to complete every prerequisite before declaring a major. To make an appointment, go to the Program in Biology website at www.Isa.umich.edu/biology/.

Field of Major and GPA Calculation. For purposes of calculating grade point average, the term "field of the major" (for all majors) means the following:

1. All BIOLOGY, EEB, MCDB, and Biological Station courses, including crosslisted ones, at the 200-level and above.
2. All required cognate courses (if any).
3. All mandatory prerequisites.

Introductory Biology Credit Limitation: The maximum amount of credit that can be earned in introductory biology courses is 17 credits. Students interested in majoring in Biology, General Biology, CMB, EEB, Microbiology, or Plant Biology must complete BIOLOGY 171, 172/174 and 173, or BIOLOGY 195 and 173, or equivalent.

## Cell and Molecular Biology

May be elected as a departmental major program
Updated 11/14/2015 - effective Winter 2016 (retroactive to Fall 2008)
Update 4/11/2016 - effective Winter 2016 (retroactive to Fall 2008)
Update 4/11/2016 - effective Fall 2016 (retroactive to Fall 2008)
Exclusions: Students who elect a major in Cell and Molecular Biology may not elect the following majors: Biology; General Biology; Microbiology; Plant Biology; Biochemistry; Biomolecular Science; or Neuroscience. They may also not elect a minor in Biology; Plant Biology; Chemistry; or Biochemistry.

The curriculum in Cell and Molecular Biology offers students an integrated program of study and training in the biological and physical sciences. It is a pathway to graduate study in areas of biology and medicine that emphasizes a quantitative and analytical approach to the life sciences.

## Prerequisites to the Major

- BIOLOGY 171, 172/174 and 173; or BIOLOGY 195 and 173; or
BIOLOGY 162 or 163
- anPHYSICS $125 / 127$ and $126 / 128$; or PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241.
- CHEM 210/211 and 215/216
- Quantitative Analysis 1: MATH 115, 120, 175, 185, or 295
- Quantitative Analysis 2: One of
o BIOLOGY 202
o MATH 116, 121, 156 (retroactive to Fall 2008), 255, 176, 186, or 296
o STATS 250; 400-level or above
o BIOPHYS 290 / PHYSICS 290
o EECS 203 or 280
o EARTH 468
o Any other course with a MATH 115 prerequisite chosen in consultation with a major advisor
[Note: any course used to meet this requirement cannot also be used as a major elective, i.e., a course cannot "double count".]
Requirements for the Major. Minimum of 32 credits for the major, including:

1. Required courses.

Genetics: BIOLOGY 305;
Biochemistry: one of MCDB 310 or BIOLCHEM 415 or CHEM 351
Cellular and Molecular Biology: MCDB 427; MCDB 428.
2. Advanced laboratory requirement. Two advanced lab courses from among: MCDB 306, 400*, 413, 419, 423, or 429.
3. Biology/Chemistry elective. One course chosen from:

- BIOLOGY 205, 207, 222, 225
- MCDB 308, 321
- CHEM 230 or 260 , or $241 / 242$ or $245 / 246 / 247$, or 452
- any advanced CMB course (See \#4).

4. Advanced CMB courses. Choose two courses from:

MCDB 401, 402, 403, 404, 405, 408, 410, 411, 415, 416, 417, 418, 421 (effective Winter 2016, retroactive to Fall 2008), 422, 425, 426, 430, 432, 433, 435, 436, 437, 440, 441, 444, 448 (effective Fall 2016 , retroactive to Fall 2008), 450, 453 (effective Winter 2016, retroactive to Fall 2008), 454, 455, 456, 457 (effective Winter 2016, retroactive to Fall 2008), 459, 462, 469, 471, 489, 504, and 589.

A third (or fourth) advanced CMB lab course (MCDB 306, 400*, 413, 419,423 , or 429) may also be used to meet this requirement.
*Note: Only three credits of independent study may count toward the major. Three credits must be completed in one term to meet the advanced laboratory requirement or advanced CMB course requirement.
5. Elective Courses. Choose additional courses from the following, as necessary to reach 32 credits:
a. Any BIOLOGY, EEB, or MCDB course at the 200-, 300-, or 400 -level (except BIOLOGY 200, 201, 202, 215, 241, 262, or EEB 300, 302, 800, or MCDB 300, 302, 320, 412 or 800). A third advanced CMB course is permitted to meet this requirement.
b. One cognate course in Chemistry: CHEM 230 or 260, 241/242; CHEM 452 for students who elected the sequence CHEM 451-452; any Chemistry course that has CHEM 260 as a prerequisite.
c. One cognate course in Mathematics or Statistics (as approved by the department advisor): MATH courses with a MATH 116 prerequisite, or STATS 401, 412, or 425 or BIOSTAT 503.
d. BIOLCHEM 650.
e. PHRMACOL 425 (effective Winter 2016, retroactive to Fall 2008)

Advising. To make an advising appointment, go to the Program in Biology website at www.Isa.umich.edu/biology/.

## Cell and Molecular Biology and Biomedical Engineering Program (B.S. and M.S.)

May be elected as a departmental major
Exclusions: Students who elect a major in CMB:BME may not elect the following majors: Biology; General Biology; Cell and Molecular Biology; Microbiology; Plant Biology; Biochemistry; or Neuroscience. They may also not elect a minor in Biology; Plant Biology; Chemistry; or Biochemistry.

This program is designed for students enrolled in the College of Literature, Science, and the Arts. The Department of MCDB (College of LSA) and the Department of Biomedical Engineering (BME) (College of Engineering) jointly administer the program. A matriculating student will receive the BS in Cell and Molecular Biology from the College of LSA and an MS in Biomedical Engineering from the College of Engineering upon completion of all program requirements. A student will apply to both the Molecular, Cellular, and Developmental Biology and Biomedical Engineering Departments for entrance. A student will be admitted into the program only after completing the first year of the major prerequisites with a GPA of 3.2 or higher. Advisors from the Departments of MCDB and BME must approve admission to the program.

## Prerequisites to the Major

- BIOLOGY 171, 172/174, 173; or BIOLOGY 195 and 173; or BIOLOGY 162 or 163
- CHEM 210, 211, 215, 216;
- MATH 115 and 116;
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or 140/141 and 240/241.
- ENGR 101 or EECS 183
A. Undergraduate Major (BS Phase). 51 credits.

1. Core courses:
a. Genetics: BIOLOGY 305;
b. Biochemistry: MCDB 310 or BIOLCHEM 415 or CHEM 351
c. Cellular and Molecular Biology: MCDB 306; MCDB 427; MCDB 428 or BIOMEDE 418; MCDB 429.
2. Advanced Cell and Molecular Biology: one course [such as EEB 416, MCDB 401, 402, 403, 405, 410, 411, 413, 415, 416, 417, 418, 419, 421 (effective Winter 2016, retroactive to Fall 2008), 422, 423, 426, 430, 432, 435, 436, 437, 440, 441, 444, 448 (effective Fall 2016 , retroactive to Fall 2008), 450, 453 (effective Winter 2016, retroactive to Fall 2008), 454, 455, 456, 457 (effective Winter 2016, retroactive to Fall 2008), 459, 469, 489, 504, and 589; appropriate sections of MCDB 401; MCDB 400], selected in consultation with, and approved by, the program advisors. (BIOMEDE 584 is elected in the graduate phase, and does not count toward this requirement.)
3. Biology Elective: One course chosen in consultation with, and approved by, the program advisors. This course can be any BIOLOGY, EEB, or MCDB course at the 200-, 300-, or 400 -level (except BIOLOGY 200, 201, 241, 262; EEB 300, 302, 800, MCDB 300, 302, 320, 412, 800). One course in Evolution, Ecology, or Organismal Biology is strongly encouraged, as is undergraduate research.
4. Engineering courses:
a. BIOMEDE 419 (BIOMEDE 419 counts as an advanced CMB course in the CMB major).
AND
b. Choose a Track
i. Biomedical Engineering Track: BIOMEDE 221, 321, and 331 OR
ii. Chemical Engineering track: CHE 230, 330, AND either CHE 342 or 344.
5. Cognates:
a. Statistics: STATS 400, 401, 412, or 425.
b. Mathematics: MATH 215 and 216.

## B. MS (Graduate) Phase.

1. Advanced Cell and Molecular Biology: BIOMEDE 584.
2. Graduate Biomedical Engineering Core: BIOMEDE 500, 550, and 590.
3. Graduate Engineering: seven credits, chosen in consultation with the program advisor.
4. One advanced Mathematics course: three credits, chosen in consultation with the program advisor.
5. One advanced Statistics course: three credits, chosen in consultation with the program advisor.

Advising. Upon acceptance into the program, each student will be assigned two advisors, one in MCDB and one in Biomedical Engineering. Student course selections must be approved by both advisors each term.

MS phase. A student may apply to the M.S. phase during the fourth year, when the student has achieved senior standing. For admission to the M.S. phase, the student must minimally have completed all major prerequisites and be judged by both academic advisors as making satisfactory progress towards the B.S. At this time, the student must formally apply to the Rackham Graduate School for admission to the M.S. program in Biomedical Engineering. Students with a 3.2 or higher cumulative GPA in the B.S. program in CMB and who are judged by both academic advisors as making timely progress towards the B.S. degree will be admitted to the M.S. phase. Students will be charged graduate tuition for only one academic year. Students are never jointly enrolled in LSA and Rackham; however, students can begin to take graduate BME courses as undergraduates with the permission of the instructor.
Please see the Rackham website for specific policies:
www.rackham.umich.edu/help/academic_records/sugs_information_for_e ngineering/

## Honors Program

The CMB Honors Program trains students to conduct independent research in the fields of cell biology, genetics, biochemistry, and molecular biology. In addition to completing all the requirements for the CMB major, an Honors degree requires a GPA in the major of at least 3.4, and the completion of a significant piece of independent research that is reported in an Honors thesis and presented in a public forum. It is recommended that students discuss the Honors Program with a department advisor early in their undergraduate career.

Declaring an Honors Plan in CMB. Students are encouraged to meet with a CMB advisor to declare their Honors plan as soon as they have arranged an Honors research project with their prospective mentor.

The Honors Research and Thesis. Students conducting Honors research must register for independent research in MCDB (MCDB 300 or 400) for at least two terms. Students interested in Honors research in labs outside of the MCDB department must identify a co-sponsor. It is important for these co-sponsored students to discuss their proposed project with a CMB advisor in advance to ensure that the subject matter is appropriate for a CMB Honors thesis.

The Honors thesis is expected to be a report of a substantial body of original results obtained during a sustained period of investigation. It is to be written in the form of a research paper that could be submitted to a journal in the student's area of interest, with the exception that the introduction is expected to provide substantially more background on the research area than is typical of a research article.

Prior to submitting the thesis, students should identify three readers for the thesis, one of whom is the sponsor. At least two readers must be faculty members in the Department of MCDB. The thesis must be submitted by April 1 (for May graduates), August 1 (for August graduates), or December 1 (for December graduates).

Based on material presented in the Honors thesis and the student's overall record, the readers of the thesis will recommend a rating of "No Honors," "Honors," "High Honors," or "Highest Honors". The CMB Curriculum Committee will review the reader recommendations and determine the appropriate level of Honors.

The Research Presentation. The presentation of the Honors research may be given at a poster session or as a formal talk. The student's mentor will
confirm that this requirement has been met in the letter of evaluation.

# Multidisciplinary Design Program 

Multidisciplinary Design Program
College of Engineering
Engineering Programs Building (EPB), Rooms 201-207
(734) 763-7421 (phone)
mdp.engin.umich.edu
Michigan students are working on exciting design projects that are changing how the world works.

Multidisciplinary design is an engineering design process that incorporates the skills of different majors balancing their needs and constraints, via systems engineering, resulting in superior products. A design team requires solid engineering knowledge, hands on experience, teamwork, creativity, and ingenuity to produce the best results.
The Multidisciplinary Design (MD) Program offers student the opportunity to use engineering knowledge to design, build, test, and implement new and interesting projects working with a team of students who bring a variety of academic backgrounds and ways of approaching a problem.

For Information: Shawn Salata, ssalata@umich.edu

## Minor in Multidisciplinary Design

Undergraduate students can benefit from practical experience designing technology systems in collaboration with students from other disciplines both inside and outside of engineering. This experience requires students to apply their developing disciplinary skills to projects that also require broader multidisciplinary concepts and approaches. This will expose participating students to systems engineering concepts and will help them succeed in the fast-paced, global and entrepreneurial market for graduate students and professionals in the $21^{\text {st }}$ century. A minor in Multidisciplinary Design requires students to exercise their acquired disciplinary expertise in the context of a significant multi-semester team design-build-test project. This project must be multidisciplinary and involve concepts and approaches from at least two other disciplines to be completed successfully. The projects closely follow the following elements or steps:

1. problem definition based on qualitative and/or quantitative requirements
2. generation of creative solution concepts
3. analysis of the quality of proposed concepts
4. selection and optimization of a final concept
5. evaluation of the final concept through the building
6. testing of prototypes in realistic settings (or virtual models with models of the applicable environment), and iteration and/or detailed recommendation for improvement of the final concept based on the lessons learned from Steps 1 through 5.

These design projects are conducted during or after the student has taken a defined set of preparatory courses and ideally feature a meaningful connection with at least one discipline outside of engineering.

Intended Audience. While the minor would be open to all qualified students in LSA, it expected to be of interest primarily to students in Life Sciences, Physical Sciences, and Mathematics. The Multidisciplinary Design minor promotes a wide range of experiential, project-based opportunities that engage areas of broad interest, e.g., the environment, sustainability, social service, global health, space exploration, etc.

Specializations. Students may join a program specialization that has been designed by a faculty member(s) around their particular interests. Students must apply to and be accepted by the faculty member managing the specialization. Specializations typically include a specified set of courses and projects. Students who complete a specialization will have it noted on their transcripts. There are currently two specializations: Global Health and Social Innovation.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Minor Program. At least 15 credits (at least two courses must be upper division courses) chosen in consultation with and approved by the minor advisor, distributed as follows:

A. Completion of at least 2 credits of introductory "Design, Build, Test" (DBT) experience. This provides students with a foundation in the experience of creating solutions for a specified problem.
Approved examples include: appropriate sections of ENGR 100, AOSS 280, MECHENG 250, BIOLOGY 173, and MCDB 306; Other courses considered upon request.
B. Completion of at least 3 credits of "cornerstone" coursework that serves to prepare the student in depth for his or her multi-semester project work.

This serves to prepare the student in breadth for his or her multisemester project work. The minor in Multidisciplinary Design is best served if the cornerstone experience meets the needs of the project and exceeds the nominal preparation associated with the student's major discipline. Therefore the student must identify a cornerstone course, outside the set of his or her required classes, which will serve to prepare the student for their specific project work.

- This course is to be taken prior to completing the final three credits of project work and should be identified during the project scoping exercise (see item C below).
- Specializations can require students to take a specific cornerstone class.
C. Completion of at least 7 credits of multidisciplinary design project work. A "multidisciplinary design project" is operationally defined as a design project containing a significant engagement and integration of students, faculty, or course projects from three distinct disciplines. Ideally one of these disciplines is outside the College of Engineering. Students must be prepared for these projects to be extensive, often involving co-curricular (non-graded) and extra-curricular activities.
- Ideally this project features consecutive academic terms of indepth work on the same design project.
- These credits cannot all be taken in the same academic term.
- The project work can occur within departmental design courses (e.g., MECHENG 450 and EECS 430), independent study courses (e.g., MECHENG 490), or in the ENGR curriculum (e.g., ENGR 355, ENGR 455, and/or ENGR 450). Co-ops and research projects can be considered if they reflect the spirit of the program and are appropriately reflected in graded coursework.
- Prior to or at the beginning of this multi-term team project experience, the student must complete a thoughtful project scoping exercise that defines the project objectives, approach to
completing the objectives, and how the student intends to contribute his or her expertise to the completion of the project. At this time, the student needs to identify courses he or she plans to take to complete the minor.
D. Completion of at least 2 credits of formal leadership and/or mentorship activities within the Multidisciplinary Design program. This requirement is presently satisfied by independent study ENGR 456 typically supervised by the research faculty member who also supervises the seven credits of design project work.

Completion of the minimum credit hours for each category A-D adds up to 14 credit hours; therefore the student needs at least one extra credit in one of the categories.

Constraints. Transfer credit may not be used to satisfy the multidisciplinary design project course requirement (item $C$ above) or the mentorship/leadership course requirement (item D above).

Advising. Students interested in this minor should contact the Multidisciplinary Design Program advisor for further information and advising. The Advisory Committee of the Multidisciplinary Design Minor Program is responsible for approving any variance in course requirements for a minor. Such variances are usually proposed by the student.

## Museum Methods

Museum of Natural History
Ruthven Museums Building
1109 Geddes Avenue
(734) 764-0478 (phone)
(734) 647-2767 (fax)
www.Isa.umich.edu/ummnh/

The College of LSA offers through the facilities of the Museum of Natural History laboratory/discussion/lecture courses for students interested in natural science museum exhibits. Museum methods courses are open to undergraduate and graduate students. These courses focus mainly on the principles, methods, and techniques used by professional exhibit designers. Some basic concepts in educational design and theory, as related to museums, are also covered.

# Museum Studies 

Charles H. Sawyer Center for Museum Studies
U-M Museum of Art
525 South State Street
734-936-6678 (phone)
734-786-0064 (fax)
ummsp.lsa.umich.edu/
e-mail: msp-ug@umich.edu
The Museum Studies Program was established in 2002. The program offers an undergraduate minor through the College of Literature, Science, and the Arts, and a graduate certificate through the Rackham School of Graduate Studies.

Museums have changed dramatically in the last few decades. Today's museums are dynamic institutions playing increasingly important roles in the communities they serve. In addition to being a place for collecting, preserving, studying and exhibiting "objects," the museum has become a vital arena for learning, exploring and negotiating the complex relationships that individuals and groups have with the social and natural environments in which they live.

In response to this movement, the museum profession has seen significant growth that has led to greater demand for qualified museum specialists. It is a profession that offers many exciting opportunities for the application of knowledge, skills and critical thinking associated with a variety of disciplines.

The field of museum studies is inherently interdisciplinary in nature. Interdisciplinarity is fostered through the inclusion of ideas drawn from a variety of subject areas and from a structured examination of collecting institutions of varying types (e.g., art museums, science centers, botanical gardens, zoos), in various geographic settings, from different cultures, in both the past and the present. The curriculum is organized thematically, balancing history and theory with opportunities for practical engagement. This applied theory emphasis will feature ongoing exposure to the rich resources of the University of Michigan including museums, museum collections, and engaging museum professionals in the classroom as an integral part of student learning. Students will learn the value of bridging theory and practice.

## Minor in Museum Studies

The primary goal of the minor in museum studies is to teach students how museums work, both in historical and contemporary contexts. Doing so involves learning to critically engage the historical, social, cultural, artistic and scientific dimensions of heritage, both tangible and intangible, within the museum. The museum studies minor seeks to foster "museum literacy" by introducing students to the processes by which meaning is inscribed upon objects within the context of museums and to the roles museums, broadly defined, play in society. Institutions, objects and collections, and society thus form the curriculum's conceptual foci.


Objects and Collections - The artifact, collections of artifacts maintained by museums, and the information associated with them:
the nature of objects; learning from objects; disciplinary perspectives on the object; the role of museum artifacts in research; conservation; connoisseurship; collectors and collecting; tangible and intangible
culture; how objects acquire their meaning; the real vs. the represented; exhibit design (how museums choose to display objects)

Institutions - The wide variety of organizations that collect and display artifacts for education, research, or entertainment:
the history of museums; administration, governance, and ethics; nonprofit and for profit models of museums; national vs. local museums; museums in their various forms (i.e., science centers, zoos, botanical gardens, history centers, art museums, themed experiences); the relationship of museums to libraries and archives; rationalizing the museum within society; museum design and architecture; assessment; technology in museums; organization of and access to museum information; professional associations at the state, national and international levels

Society - The audiences that museums engage, individually or collectively, and the communities whose cultures are represented in museum displays:
the role of museums in society; the representation of ethnicity, gender, race, and culture in museums; the role of museums in nation building; public culture; repatriation and debates over the ownership of cultural properties and cultural heritage; visitor studies; learning in museums; defining the museum experience; audience and visual perception studies

Investigations into the interrelationships that exist between these three foci will add to the wealth of material addressed in the curriculum. Indeed, some of the most interesting issues exist at the intersections of these foci.

Students will derive multiple secondary benefits from this course of study new content knowledge, an enhanced ability to conduct research in one's academic discipline, a new means by which to understand other cultures and societies, a heightened awareness of the points of view afforded through multidisciplinary study and understanding the relationship of how one's discipline relates to other disciplines, an increased capacity for critical thinking and observation, and the personal empowerment derived from becoming more informed users of cultural assets, especially those available at the University of Michigan.

Despite being situated in the College of LSA, the undergraduate minor has been designed to accommodate majors from other schools and colleges at the university. While it has been broadly conceived, the museum studies minor will hold special appeal to students majoring in Anthropology, Classical Archaeology, History, History of Art, American Culture, and Communication Studies, where students are first introduced to these topics.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Students will be eligible to declare their desire to pursue the Museum Studies minor upon completion of MUSEUMS 301 (sophomore standing).

Minor Program. The minor requires at least 18 credits as stated:

1. Core Courses: MUSEUMS 301 and 401.

MUSEUMS 301 and MUSEUMS 401 provide a theoretical/historical overview of museums as examined through the constructs of institutions, objects and collections, and society as well as an examination of the critical issues confronting museums in the contemporary world.
2. Museum-Based Practicum: MUSEUMS 409 (Practicum in Museums) will be available to students who have declared the minor in Museum Studies. MUSEUMS 409 establishes a critical bridge between theory and practice and - through the use of mentoring, class discussion, and engagement with the principles of reflective practice - will assure that students draw the most from this experiential requirement. Based on the premise that theoretical grounding is necessary for a successful practicum experience, students will not be allowed to seek MUSEUMS 409 credit for museum-based practical experiences undertaken before
completing MUSEUMS 301. Students interested in acquiring additional museum experience may repeat MUSEUMS 409 for a total of six credits. In such instances the second three credits may replace one of the required three elective courses.
3. Electives: Three elective courses chosen in consultation with, and approved by, the museum studies faculty advisor. These courses are selected from designated 300- and 400-level courses in the three thematic areas (institutions, objects and collections, and society) of the program.

Students must elect one course from at least two of the three areas:
A. Institutions
B. Objects \& Collections
C. Society

The electives offer students the opportunity to take courses to further their knowledge of institutions, objects and collections, and society in
many departments in the university. Those students selecting courses not directly focused on the museum will have the opportunity to make critical ties back to the field through the completion of mentored writing assignments. To receive elective credit for a course that is not explicitly museum-focused, upon receiving prior approval a student will be required to write a brief (5-page) rationale paper that addresses the relationship between the content of the course and issues considered in the two museum studies core courses, MUSEUMS 301 and 401. The academic staff of the Museum Studies Program will evaluate these papers.

Advising. Advising responsibilities are divided between the Museum Studies Program Student Services Specialist and Museum Studies faculty, specifically the Director and Associate Director. General questions regarding curriculum requirements will be handled by the Student Services Specialist. The Director and Associate Director advise students on issues concerning elective course selection, graduate study, and career planning.

## Music, Theatre \& Dance

School of Music, Theatre \& Dance
2290 E.V. Moore Building
1100 Baits Drive
(734) 763-0583 (phone)
(734) 763-5097 (fax)
www.music.umich.edu

## Dance

Dance Building
Not an LSA major. Students with an interest in Dance should contact the 1310 North University Court Department of Dance.
(734) 763-5460 (phone)
www.dance.umich.edu

## Music

sitemaker.umich.edu/Isamusic
e-mail: Isamusicadvisor@umich.edu
Professor Louise K. Stein (Musicology), Advisor
Associate Professor Charles Garrett (Musicology), Advisor

## May be elected as an interdepartmental major

Updated 11/15/2015 - Effective Fall 2015
Course list additions 2/19/2016, Winter 2016
The Music Major provides students with broad experience in the study of music (both creative expression and critical analysis), through musicology and music theory, along with introductions to musical composition and performance. The LSA Major works in conjunction with the LSA Bachelors of Arts and Sciences degrees and provides a liberal arts alternative to the Bachelor of Musical Arts and Bachelors of Music degrees offered within the University of Michigan School of Music, Theatre \& Dance.

The objectives of this major are to encourage the study of music as art and culture in the many contemporary and historical contexts of its creation, performance, dissemination, reception, and representation, including an understanding of the relationships and distinctions among the musical cultures of diverse historical epochs, civilizations, and geographical regions. Musical study fosters an awareness of the aesthetic, social, political, religious, and personal values that may be embedded in musical works and practices; an understanding of theoretical approaches to music and the relations between music and other arts and disciplines; and an awareness of the impact of technology on musical creation and production.

Requirements for the Major. A minimum of thirteen courses (and 28 credits) are required; with the permission of the department advisor, as many as five courses from outside the University of Michigan may be accepted to satisfy requirements for the major. Eight courses must be taken at the University of Michigan, including the following:

1. Musicology (MUSICOL): one introductory course in music (MUSICOL 121, 122, or 123 or advisor approved equivalent) and two additional courses in Musicology or Ethnomusicology (MUSICOL 122, 123, 343, 345, 346, 351, 411, 450, 456, 458, and other 300-400 level courses, or advisor approved equivalent). MUSICOL 139, 140, 239, or 240 , may be elected to meet requirements for the major with permission of the instructor and the department advisor.
2. Music Theory (THEORY): two courses of basic music theory (THEORY 137 [section 001, plus a lab section 002-005] and 238 [section 001, plus a lab section 002-003], or 139/149 and 140/150, or 239/240 and $240 / 250$ or advisor approved equivalent (by permission of instructor).
3. Music Composition (COMP): COMP 221, 222, PAT 201, or advisor approved equivalent (students with an historical or ethnomusicological focus within the major may request that this requirement be waived through substitution of another 400-level course in Musicology).
4. Music Performance: a total of four courses of performance instruction, selected from PIANO 110, 111, 112, 113 or private instruction 150. At least two courses of private instruction are required (applied piano class is acceptable as "private" instruction). Private instruction courses are those listed at 150 (VIOLIN 150, PIANO 150, TUBA 150, and so on). Ensemble may be elected to cover two of the four required terms.
5. Two additional MUSICOL, THEORY, COMP, or PAT courses at the $\mathbf{4 0 0}$ level or above.

The core requirements listed here typically demand approximately 30 credits. Music majors may select the remaining music courses in accordance with their personal interests. Students should acquaint themselves with graduate school requirements if they plan to do graduate work in composition, musicology, theory, or performance. The department advisor can assist students in arranging the best program in preparation for graduate studies and discuss the possibility of transferring into the University of Michigan School of Music, Theatre \& Dance.

Honors Plan. Qualified students are encouraged to consider an Honors plan in Music. The standards for admission are a cumulative grade point
average of at least 3.5 and evidence of outstanding ability in music. Application is made and admission is granted to the Honors plan during the first term of the junior year. Two additional courses (in performance instruction or at the 400 -level or above) are required, and the primary focus of an Honors program is a written senior Honors Thesis or a lecture recital with extensive program notes approved by a Music department advisor. Independent research study with an advisor may satisfy the additional course requirement (one term of 2 or 3 hours of independent study fulfills one term of the course requirement). Honors majors should elect one term of junior-senior seminar in Musicology or Music Theory.

Advising. A major is developed in consultation with and must be approved by the music department advisor. Appointments are scheduled through the LSA Academic Advising Center, 1255 Angell Hall (764-0332).

For additional information regarding the music major and minor, see: sitemaker.umich.edu/Isamusic

## Minor in Music

Course list additions Winter 2016, 2/19/2016
A minor in Music is developed in consultation with an undergraduate advisor in music. Appointments are scheduled through the Newnan LSA Academic Advising Center, 1255 Angell Hall (764-0332).

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits (and five courses), to be chosen from the following two categories as stated below:

## 1. Required Survey Course:

- MUSICOL 121, Introduction to Music
- MUSICOL 122, Introduction to World Music
- MUSICOL 123, Introduction to World Music
- MUSICOL 343, Music and Islam
- MUSICOL 345, History of Music
- MUSICOL 346, History of Music
- MUSICOL 130, Opera!
- MUSICOL 139/140, History of Music
- MUSICOL 239/240, History of Music
- Introduction to Music Theory (THEORY 137, or 139/149), or equivalent

2. Electives: at least 12 credits in Music courses, with at least two courses at the 300-level or above. Electives must include one or more courses in two of the following five areas: Composition, Musicology, Music Theory, Performance, and Performing Arts Technology.

AP credit: AP credits may not be used to satisfy requirements of the minor with one exception. AP Credit may qualify, if approved by the advisor, for the required Survey Course. In this instance, a minimum of 5 other courses, totaling 15 credits, must be elected for the minor.

Conditions: Upon approval of the department advisor, up to six credits earned outside of the University of Michigan or its sponsored programs may be used to satisfy requirements for the minor.

Exclusions: A minor in Music is not open to students with a major in Music, including those in the University of Michigan School of Music, Theatre \& Dance.

## Electives for Music

- AAS 354 / RCHUMS 354 / WOMENSTD 354 / HONORS 354. Race and Identity in Music
- AAS 366. Music of Africa
- AMCULT 209. History of American Popular Music
- AMCULT 226 / HISTORY 226 / LATINOAM 226. The Latin Tinge
- AMCULT 228. American Musical Soundscapes
- AMCULT 337. A Survey of American Blues Music
- AMCULT 407. The History of American Folk Music: Culture, Politics, Music
- AMCULT 409. American Roots Music
- AMCULT 411 / WOMENSTD 411. Rednecks, Queers, and Country Music
- AMCULT 436. Music of Asian Americans
- COMM 445. Music and Mediated Identities
- ENS 406 / RCHUMS 406. Beginning Javanese Gamelan
- ENS 407 / RCHUMS 407. Javanese Gamelan Ensemble
- HISTORY 226 / AMCULT 226 / LATINOAM 226. The Latin Tinge
- HONORS 354 / RCHUMS 354 / AAS 354 / WOMENSTD 354. Race and Identity in Music
- LATINOAM 226 / AMCULT 226 / HISTORY 226. The Latin Tinge
- PHYSICS 288. Physics of Music
- PSYCH 211. Project Outreach (Topic 37 Mind, Music, and the Community) [Winter 2016, retroactive to Fall 2012]
- RCHUMS 249. Foundations of Music
- RCHUMS 250. Chamber Music
- RCHUMS 251. Topics in Music
- RCHUMS 252. Topics in Musical Expression
- RCHUMS 253. Choral Ensemble: Residential College Singers
- RCHUMS 256. Studying and Playing Southeast Asian Music
- RCHUMS 258. Afro-Cuban Drumming and Styles
- RCHUMS 259. Music Improvisation
- RCHUMS 350. Creative Musicianship
- RCHUMS 351. Creative Musicianship Lab
- RCHUMS 352. Found Instruments: Building, Design, and Performance
- RCHUMS 354 / AAS 354 / WOMENSTD 354 / HONORS 354. Race and Identity in Music
- RCHUMS 356. The Symphonic Century: Music and Revolution in the $19^{\text {th }}$ Century
- RCHUMS 406 / ENS 406. Beginning Javanese Gamelan
- RCHUMS 407 / ENS 407. Javanese Gamelan Ensemble
- SOC 255. Sociology of Music
- WOMENSTD 354 / RCHUMS 354 / AAS 354 / HONORS 354. Race and Identity in Music
- WOMENSTD 411 / AMCULT 411. Rednecks, Queers, and Country Music
- All other group music ensembles offered at the 300 -level in the Residential College


## Theatre \& Drama

Walgreen Drama Center
1226 Murfin Avenue
(734) 764-5350 (phone)
(734) 647-2297 (fax)
www.music.umich.edu/departments/theatre
e-mail: theatre.info@umich.edu
The Department of Theatre and Drama participates in the Drama major offered through the Residential College. Threatre faculty contribute expertise in design, production and practicum work. (For students planning a professional career in theatre, the department's B.F.A. or B.T.A. programs may be more appropriate.) The department offers minors in Global Theatre and Ethnic Studies, Design and Production, and Performing Arts Management.

## Design and Production (D\&P) Minor

Exclusions: Students enrolled in the Theatre Department's current degree programs: Performance, Design \& Production, Directing and the BTA are not eligible for this minor, nor are the students majoring in the InterArts degree.

Creating theatre is about people working together. In all of our endeavors, we continually strive toward the highest standards of excellence. Work in the Theatre Department requires enormous energy and dedication. Programs are structured to help each student realize his or her unique potential. Development of skills is systematic and disciplined, and opportunities to explore individual creativity are enormous. The Design \& Production faculty are working professionals with extensive theater credits. It is the expectation of the faculty that all students should excel in their course work.
D\&P core courses cover all facets of design and production, including aesthetics, theory, history, literature, graphics, technology and crafts. NOTE: Permission of Instructor is necessary for all courses. In addition to classroom study, you'll work on shop and crew assignments to hone your skills.

The School of Music, Theatre, \& Dance produces 10 main stage productions each year. These productions are realized by the staff of University Productions, which is organized on the model of a professional theatre company. By working on productions, students gain valuable experience which serves as a foundation for a resume and portfolio. Through work in the shops, students benefit from "in the field" experience with our professional staff, who teach within this shop setting, as well as in the classroom.

All university productions are built by the staff and students in our shops. Through a series of structured practicum assignments, our students are intimately involved in all levels of this production work. Practicum assignments are made individually for each student by the D\&P faculty and staff. Selection of assignments is based on consideration of the student's skills and abilities, interests and needs, and class performance, as well as on the needs of each production and workshop. We strongly encourage that students register for only one practicum per semester. The number of credit hours per practicum varies, based on practicum level. The student should expect to work between 45-60 hours per credit hour, although a practicum course is generally assigned on a per-project basis. For shop assignments, the hours are generally concentrated into a 4- to 6 -week build schedule. For design assignments, the time commitment is similarly concentrated.

## Prerequisites to the Minor: None.

Prerequisites to Declaration. Students will choose one of the four D\&P tracks and confine their studies to that area. Students interested in this program must take two classes listed in their area of interest to become eligible for this minor. At that point the student would interview with the Design and Production faculty. Students must secure written approval from their home school/college to pursue a D\&P minor and are declared into the minor by the D\&P advisor ONLY.

Advising. Students must develop a plan for the minor in consultation with an advisor in the Design and Production Program. Contact the Design and Production Program, (734) 764-5350; ask to speak with an advisor in the Design \& Production program.
Requirements for the Minor. At least 18 credits chosen in one of the four tracks.
A. Track in Scenic Design

- THTREMUS 263 Rendering (3)
- THTREMUS 260 Scene Design I (3)
- THTREMUS 360 Scene Design II (3)
- thtremus 460 Scene Design III (3)
- THTREMUS 462 Drafting (3)
- THTREMUS 464 Scene Painting (3)
B. Track in Costume Design
- THTREMUS 263 Rendering (3)
- THTREMUS 277 History of Dress or THTREMUS 478 History of 20th Century Dress (3)
- THTREMUS 270 Costume Design I (3)
- THTREMUS 370 Costume Design II (3)

And six credits to be chosen from:

- THTREMUS 470 Costume Design III (3)
- THTREMUS 476 Costume Crafts (3)
- THTREMUS 452 Costume Construction (3)
- THTREMUS 471 Women's Pattern Drafting (3)
- THTREMUS 571 Men's Pattern Drafting (3)
- THTREMUS 172 or 472 Make-up Design (1-2)
- THTREMUS 251, 252 Production Practicums (1 ea.)
C. Track in Lighting Design
- THTREMUS 245 Intro to Stage Management (3)
- THTREMUS 256 Lighting Design I (3)
- THTREMUS 356 Lighting Design II (3)
- THTREMUS 456 Lighting Design III (3)
- THTREMUS 251 Practicum I - Light Board Op. (1)
- THTREMUS 252 Practicum II - Focus Crew (1)
- THTREMUS 261 Practicum III - Assistant ME (2)
- THTREMUS 351 Practicum V - Assist Lighting Des. (2)
D. Track in Stage Management
- THTREMUS 245 Intro to Stage Management (3)
- THTREMUS 250 Intro to Tech Theatre (3)
- THTREMUS 321 or 322 Theatre History I or II (3)
- THTREMUS 351 Practicum V - $1^{\text {st }}$ ASM (3)

And six credits chosen from:

- THTREMUS 101 Intro to Acting (3)
- THTREMUS 240 Intro to Design (3)
- THTREMUS 256 Lighting Design I (3)
- THTREMUS 345 Stage Managing Plays (3)
- THTREMUS 385 Performing Arts Management (3)
- THTREMUS 435 Producing in American Theatre (3)
- THTREMUS 446 Advanced Stage Management (3)
- THTREMUS 462 Drafting (3)

Global Theatre and Ethnic Studies Minor
"Ethnic studies" references ethnic, under-represented communities in the United States and their diaspora affiliations overseas. It includes, but is not limited to African American, Arab American, Asian/Pacific Islander American, Latino/a, and Native American communities. The scope of this minor includes the dramatic literature of these American communities and embraces global literature and performance practices that are in dialogues with these communities.

The goal of this minor is to introduce students to literature and performance histories of diverse cultures and to use studio practice to develop proficiency in creating new work from diverse cultural perspectives. The minor is designed for humanities students, arts students, and other students interested in performance practice (music, theatre, dance, or dramatic literature) based upon diverse cultural perspectives, and provides experience in non-western performance practice, playmaking, and theatre studies.

By completing this minor, students will develop skills in text analysis, historical/cultural research, critical thought and public performance. In addition, they will learn how performance practices can be used to critically interrogate global histories and social structures.

Students will learn:

- To research and articulate (through writing and performance) multicultural and intercultural performance histories.
- To read and analyze theatrical works emerging from diverse cultural contexts.
- To perform and create new dramatic works that represent diverse cultural perspectives
- To organize, networks, and interact with diverse cultural communities around performing arts practice.

Advising. Students must develop a plan for the minor in consultation with the advisor, Professor Anita Gonzalez, Department of Theatre \& Drama (School of Music, Theatre \& Dance).

## Prerequisites to the Minor: None.

Requirements for the Minor. At least 5 courses and 15 credits chosen from the following categories as stated

## A. Core courses:

i. Introductory Survey: THTREMUS 222 - Introduction to Global Theatre and Ethnic Studies
ii. Introductory Studio Practice: THTREMUS 233 - Modern Rituals/Traditional Practices
B. Capstone Community Engagement course:
i. THTREMUS 324 - Global Communities Practicum or
ii. Through performance practice with any one of the following courses:

- RCHUMS 334 - Special Topics in the Humanities, section titled "Community Empowerment through the Arts"
- RCCORE 301 - Community Based Internship - Semester in Detroit
- ARTDES 312 - Arts Workshops in Prisons
- or an approved GIEU program with immersive performance experiences
C. Electives. One course in each of the following categories:
i. Dramatic Performance Literature. These courses expand and deepen student knowledge of global or ethnic performance literatures.
- THTREMUS 325 - Contemporary American Theatre and Drama
- THTREMUS 326 - Intercultural Drama
- THTREMUS 328 - Theater of Politics
- ENGLISH 311 - Theater of Politics
- ASIAN 356 - Contemporary Chinese Performance Culture
- ASIAN 373 - The Performing Arts in South and Southeast Asia
- ITALIAN 471 - Italian Theatre
- POLISH 214 / REEES 214 - Rock Poetry and Political Protest in Poland
- REEES 214 / POLISH 214 - Rock Poetry and Political Protest in Poland
- RUSSIAN 463 - Chekhov
- RCHUMS 373 - The Performing Arts in South and Southeast Asia
- SPANISH 425 - Latin-American Theatre
- SPANISH 468 - Modern Spanish Theatre
ii. Studio Electives. One of the following:
- THTREMUS 332 - Performing Archives and Oral Histories
- THTREMUS 340 - Devising Theatre
- THTREMUS 440 - Special Topics in African American Theatre
- DANCE 348 - Africanist Traditions, section titled "African Dance Traditions: From Minstrelsy to Hip Hop"
- DANCE 342 - Topics in World Dance
- AAS 358 - Topics in Black World Studies, section titled "African Dance Traditions: From Minstrelsy to Hip Hop"
- RCHUMS 235 - Topics in World Dance
- RCLANG 321 - Readings in German, section titled "Deutsches Theatre Play Production Seminar"
- RCHUMS 334 Special Topics, section titled "Cultures in Dialogue"


## Performing Arts Management Minor

Understanding organizational, promotional, and fundraising techniques can help advance all work in the arts. Whether teaching, creating, or working within a traditional performing arts institution (such as an orchestra, theatre, opera, or dance company), management training amplifies the symbiosis of artistry, institution, and community and enriches the performing arts and culture as a whole.

The minor in Performing Arts Management (PAM) invites exceptional undergraduate students to add an arts business and entrepreneurship background to their academic portfolio. Such a combination is intended to amplify the careers of students interested in advancing the performing arts in America. By gaining the business knowledge and skills of these arts, students throughout the University can add a significant dimension to their education.

Advising. Students wishing to pursue a minor in Performing Arts Management must develop a specific plan for its completion in consultation with Professor Greg Poggi (gpoggi@umich.edu), the department advisor, 2424 Walgreen Drama Center. For further information, contact the department office at theatre.info@umich.edu.

## Prerequisites to the Minor: none

Prerequisite to Declaration: Students interested in this minor must take two classes listed from the Required Topics curriculum to become eligible for this program. Once completed successfully, the student would interview with the Performing Arts Management Advisor and apply for admission to the minor.
Requirements for the Minor: At least 15 credits with a minimum of five courses, to be chosen from the following two categories as stated:

1. Required Topics Courses: Complete at least 10 credits in the following courses:

- THTREMUS 385(PerformingArtsManagement)-2credits
- THTREMUS 426(Fundraising andtheArts)-2 credits
- THTREMUS 435(ProducingintheAmericanTheatre) -3 credits
- THTREMUS 438 (Legal IssuesintheArts) -3 credits
- PAT472(BusinessofMusic)-3credits
- JAZZ480(CareerDevelopmentforJazzMusicians)-2credits
- ARTSADMN 491 (Special Projects, 1-2 credits)
- ARTSADMN 591 (Internship, 1-2 credits)
- ORGSTUDY 495 (Non-Profit Organizations: Theory and Practice only)3 credits

2. Electives: The remaining credits can be earned in courses chosen from the following courses:

- ACC 271 (Principles of Accounting I)
- ACC 272 (Principles of Accounting II)
- COMM 101 (The Mass Media)
- COMM 102 (Media Processes and Effects)
- COMM 351 (Understanding Media Industries)
- COMM 371 (Media, Culture, and Society)
- COMM 454 (Media Economics)
- COMM 462 (Designing Persuasive Communication)
- COMM 463 (Computer Mediated Communication)
- COMM 466 (Internet, Society and the Law)
- ECON 101 (Introduction to Economics I)
- ECON 102 (Introduction to Economics II)
- MKT 300 (Marketing Management)
- MKT 301 (Marketing Management II)
- MKT 310 (Fundamentals of Sale Management)
- ORGSTUDY 215 (Organization and Society)
- ORGSTUDY 305 (Inside Organizations)
- ORGSTUDY 310 (Formal Organizations and Environments)
- ORGSTUDY 395 (Current Issues in Organizational Studies)
- ORGSTUDY 495 (Special Topics other than Non-Profit Organizations)
- PSYCH 260 (Introduction to Organizational Psychology)
- RCHUMS 334 (section title "Community Empowerment through the Arts")
- STATS 250 (Introduction to Statistical Data Analysis)
- SW 300 (Leadership in the Nonprofit Sector)

Residency Requirement: Upon CDR approval, up to six credits earned outside of the University of Michigan or its sponsored programs may be used to satisfy requirements for the minor.

Exclusions: Production practica are not eligible courses for the minor.

## Near Eastern Studies

4111 Thayer Academic Building
202 South Thayer Street
(734) 764-0314 (phone)
(734) 936-2679 (fax)
www.Isa.umich.edu/neareast
The Department of Near Eastern Studies (NES) teaches the diverse histories, religions, languages and literatures that originated in a vast region of the world extending from the Nile to the Oxus Rivers, and from the Mediterranean Sea to the Indian Ocean. Faculty provide students majoring in Near Eastern Studies with an interdisciplinary and comparative approach to societies, beginning with the emergence of cities and writing in Sumer and Ancient Egypt to the rise of ancient Levantine and Anatolian cultures, the formation of Judaism, Christianity, and Islam, and onwards to the Modern Middle East, extending to its transnational and diasporic communities. The course offerings in the major are designed to provide an understanding of the dynamics that have shaped the literary, linguistic, visual, social and political histories of Middle Eastern societies past and present.

In the Near Eastern Studies curriculum, all non-language/cultural studies courses fall under the NEAREAST subject code while the language courses are divided into the following subjects: ARABIC, ARMENIAN, HEBREW, PERSIAN, TURKISH, and NESLANG (for the ancient languages).

Advising. Students interested in declaring a Near Eastern Studies major or minor should plan to meet with an advisor before doing so to create a comprehensive and cohesive plan of study. Appointments are scheduled in the department office.

## Near Eastern Studies (NES)

May be elected as a departmental major

## 4/18/2016 effective Fall 2016

Students who elect Near Eastern Studies major may not also elect a major in Middle Eastern and North African Studies. Students who elect the Hebrew Studies submajor may not also elect a major or minor in Judaic Studies. Students can both major and minor in Near Eastern Studies if different languages are used toward each.

The major in Near Eastern Studies offers both a curriculum exclusively focused on language study taught in the target language and a curriculum exclusively focused on cultural studies taught in English. This structure ensures that students form a linguistic and cultural foundation while also encountering higher-level concepts and theories. It allows students the flexibility to create a program that accommodates their personal interests as well as academic needs.

## Submajor

Ancient Near Eastern Studies
Arabic Studies
Armenian Studies
Hebrew Studies
Persian Studies
Turkish Studies

Disciplinary Requirement
Cultural Studies
History
Linguistics
Literature
Religion
Visual Culture

## Prerequisites to Major

- NEAREAST 100: Peoples of the Middle East (or ACABS 100 / AAPTIS 100 / HJCS 100 / HISTORY 132).
- Two terms or proven first-year proficiency (Placement test and/or successful completion of first-year coursework) in a language appropriate to the student's chosen subfield.


## Requirements for the Major

The major in Near Eastern Studies requires a minimum of 26 credits at the 200-level or above, with at least two courses (in the disciplinary and elective courses) at the 400 -level or above. Students must choose both a
submajor and a discipline, and complete the NES Major Language requirement with a submajor-appropriate selection.

## No course will count toward the major unless the student receives a grade of $C$ - or better.

Submajor Requirement. Students must declare one submajor: Ancient Near Eastern Studies, Arabic Studies, Armenian Studies, Hebrew Studies, Persian Studies, or Turkish Studies.

Disciplinary Requirement: At least three courses (and a minimum 10 credits), focused on a single discipline. At least two courses must be from the department of Near Eastern Studies. Disciplinary courses can be chosen from a pre-approved list or, by exception, a course chosen in consultation with, and approved by, an NES department advisor.

Near Eastern Studies Language Requirement for the Major: At least two additional terms in the language appropriate to the submajor (A minimum of 6 credits).

Four terms or fourth-term proficiency appropriate to the selected submajor. Some of the submajors require fourth-term proficiency in a single language. Students are strongly encouraged to continue their language training beyond the four terms required. This is particularly important for students contemplating graduate studies. Students may test out of the Language Requirement for the NES Major by placement test (different procedures in different languages in place) but will be required to make up the credits toward the major by taking additional coursework in either the Disciplinary or Elective Requirements.

Select one of the following language choices that matches the submajor:

- Arabic, Armenian, Persian, or Turkish Studies: Two additional terms in the selected language.
- Hebrew Studies: Three additional terms of language. Students pursuing the Hebrew Studies submajor must take an additional term of Hebrew language instruction at the 300-level or above to complete the Language Requirement. Students also must include two upper division courses which are taught in Hebrew or require the reading of Hebrew texts in the Elective or Disciplinary requirements.
- Ancient Near Eastern Studies: Two additional terms of language beyond the prerequisite.

Students pursuing the Ancient Near Eastern Studies submajor may take two semesters of the same ancient language or of a different language (or one semester each of two languages) from that taken for the prerequisite to satisfy the NES Major Language Requirement for a total of four semesters of language.

Students may use up to three ancient languages toward the major (including the prerequisites), chosen from the following Ancient Languages: Akkadian, Aramaic, Coptic, Sumerian, Classical Hebrew, Classical Greek, Hittite, Ancient Egyptian, Syriac, or Ugaritic.)

Electives: At least three courses (and a minimum 10 credits), chosen from the disciplines not selected for the disciplinary requirement. At least two courses must be from the department of Near Eastern Studies. These courses may be in a single discipline or cross-disciplinary. Electives can be chosen from a pre-approved list or, by exception, a course chosen in consultation with, and approved by, an NES department advisor. Up to two courses may be 200 level or above in a second Near Eastern Studies language

At least one course within either the Discipline or the Elective Requirement must be from the pre-modern period and at least one course within either the Discipline or the Elective Requirement must be modern.

Constraints. No more than 8 credits may be elected as Independent Study. No more than one course elected outside the department of Near Eastern Studies can be applied toward the Elective Requirement. No more than one course elected outside the department of Near Eastern Studies can be applied toward the Disciplinary Requirement.

Residence Requirement. A minimum of 14 of the required 26 credits for the major must be taken at the U-M Ann Arbor campus.

Honors Plan. The Honors plan is open to all students who maintain a cumulative grade point average of at least 3.4 and at least 3.5 in the courses elected as part of the major. Students must complete all regular requirements for the major as well as demonstrate the ability to do original work by writing an Honors thesis.

Applications for Honors are due to the department by the last day of class of the student's junior year. Students may discuss the application process at any time before then with an NES department advisor. Once approved, students enroll in a two-semester, variable credit sequence of independent study coursework to finish the Honors thesis. A recommendation for the designation of "Honors," "High Honors," "Highest Honors," or "No Honors" in Near Eastern Studies is determined on the successful completion of this coursework and on the quality of the student's Honors thesis.

Further information concerning the Honors plan can be obtained at the departmental office or the Honors Program Office (1330 Mason Hall).

## Near Eastern Studies Minors

## Early Christian Studies

Students can both major and minor in Near Eastern Studies if different languages are used toward each.

The minor in Early Christian Studies provides students with the opportunity of gaining fundamental knowledge of early Christianity in its Near Eastern and Classical contexts, through the study of lower and upper level language and humanities courses in the Near Eastern Studies and Classical Studies Departments.

## Prerequisites to the Minor:

1. ACABS 122/ RELIGION 122: Introduction to the New Testament
2. Three terms of classical or koine Greek

Requirements for the Minor: At least 16 credit hours of courses to be chosen from the following categories.

1. At least one broad introductory course in the fundamentals of early Christianity (ACABS 221: Jesus and the Gospels), or in early Christianity in its Near Eastern context (ACABS 200: Introduction to World Religions: Near Eastern Religions), or its Mediterranean context (HISTORY 201: The Roman Empire and its Legacy). [4 credits minimum]
2. At least two upper-level courses in the literature of early Christianity in the original Greek (GREEK 307, 308, 427, 428, 429 and courses currently under development). [6 credits minimum]
3. At least two upper level (300-400 level) courses in early Christianity and its Mediterranean roots. [6 credits minimum]

- ACABS 322, 323, 421, 491 (section subtitled "Jewish Life in Late Antiquity)
- CLARCH 442
- CLCIV 456, 466, 476
- HISTORY 307, 405
- HISTART 442
- RELIGION 359, 468, 476


## Near Eastern Languages and Cultures

Students can both major and minor in Near Eastern Studies if different languages are used toward each.

The minor in Near Eastern Languages and Cultures provides students with the opportunity of gaining fundamental knowledge of Near East civilizations, through the study of lower and upper level language and humanities courses in one of the three divisions of the Near Eastern Studies Department, Ancient Civilizations and Biblical Studies (ACABS), Arabic, Armenian, Persian, Turkish, and Islamic Studies (AAPTIS), and Hebrew and Jewish Cultural Studies (HJCS).

## Prerequisites to the Minor:

1. AAPTIS 100 / ACABS 100 / HJCS 100 / HISTORY 132: Peoples of the Middle East.
2. First three terms of a Near Eastern language: Akkadian and Sumerian, Classical Hebrew, Arabic, Armenian, Persian, Turkish, or Modern Hebrew

Requirements for the Minor: At least 16 credits of courses to be chosen from the following categories:

1. Language course: Fourth term of the Near Eastern language chosen for the prerequisite.
2. Culture/Society courses: at least three courses in the same division as the language chosen for the prerequisite, one of which must be at the 400- or 500-level.

Because of the great variety of divisions in Near Eastern Studies, and the diversity of its curriculum, there is no pre-set sequence, but courses are chosen from the set of courses open for major. Each student determines his or her course work in consultation with a department advisor at the beginning of the program. Student progress will be regularly monitored by the appropriate undergraduate advisor.

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# Undergraduate Program in Neuroscience 

1140 Undergraduate Science Bldg. (USB)
204 Washtenaw Ave.
(734) 763-7984 (phone)
(734) 647-7892 (fax)
www.Isa.umich.edu/neurosci
e-mail: neuroscience@umich.edu
Neuroscience is an interdepartmental program administered by the Undergraduate Program in Neuroscience (with oversight by the Neuroscience Steering Committee) and represents a collaboration between the Department of Psychology and the Department of Molecular, Cellular, and Developmental Biology (MCDB).

## Neuroscience (B.S.)

Updated 3/18/2016 Winter 2016, retroactive to Fall 2015
May be elected as an interdepartmental major, supervised by the Undergraduate Neuroscience Steering Committee

Exclusions: Students who elect a major in Neuroscience may not elect the following majors: Brain, Behavior, and Cognitive Sciences (BBCS); Biomolecular Science; Biopsychology, Cognition, and Neuroscience (BCN); Biology, General Biology; Cell and Molecular Biology; Microbiology; Plant Biology; or Biochemistry. They may also not elect a minor in Biology; Plant Biology; Chemistry; or Biochemistry.

Student double majoring in Psychology and Neuroscience may share a maximum of 3 courses toward their two programs.

The overall goals of this major are to: (1) provide a course of study in the discipline of Neuroscience that integrates cell/molecular and behavioral components of the field; and (2) provide a course of study that better prepares students for graduate training in the field of Neuroscience than do the current majors in Cellular and Molecular Biology (CMB), Biology, or Biopsychology, Cognition, and Neuroscience (BCN). An understanding of how the nervous system functions spans both molecular and cellular activity that is best taught by cell and molecular neurobiologists, and behavior that is best taught by psychologists. The well-trained student will receive instruction that allows her or him to understand the usefulness of genetics, cellular biology, and behavioral tests in this complex field. This degree will provide the cross-disciplinary training that will provide a headstart into postgraduate studies in Neuroscience.

## Prerequisites to the Major.

- BIOLOGY 171 and 172/174 and 173; or BIOLOGY 195 and 173; or BIOLOGY 162 or 163; and
- CHEM 210/211 and 215/216
- Quantitative Prerequisites - Two courses from the following:
o Calculus I (MATH 115, 120, 185, or equivalent)
o Calculus II (MATH 116, 121, 156, 176, 186, or equivalent)
o Physics I (PHYSICS 125, 135, 140, 160, or equivalent)
o Physics II (PHYSICS 126, 235, 240, 260, or equivalent)
o Any STATS course that has STATS 250 as a prerequisite
0 [With the permission of an advisor, other courses that help students develop quantitative skills can be substituted.]
Requirements for the Major. A minimum of 37 credits are required.

1. Core:
A. Neurobiology: BIOLOGY 225 [This course should be taken as early as possible but no later than the end of the first term of the student's fourth year]
B. Genetics: BIOLOGY 305
C. Biochemistry: one of MCDB 310, BIOLCHEM 415, or CHEM 351
D. Biopsychology: PSYCH 230
E. Statistics: STATS 250

## 2. Electives ( $\mathbf{5}$ courses, minimum $\mathbf{1 6}$ credits).

A. Molecular and Cellular Neuroscience. At least two courses from the following (at least one course must be at the 300-level):

MCDB 351, 352, 401 (appropriate sections), 402, 403, 418, 421, 422, 426, 450, 453 (Winter 2016, retroactive to Fall 2015), 455, 456, 457 (Winter 2016, retroactive to Fall 2015), 459
HUMGEN 480 (Winter 2016, retroactive to Fall 2015)
B. Behavioral Neuroscience. At least two courses from the following:

- PSYCH 240, 245, 330 (Winter 2016, retroactive to Fall 2015), 340 (Winter 2016, retroactive to Fall 2015), 343 (Winter 2016, retroactive to Fall 2015), 345, 402 (appropriate sections, 3-4 credits only), 430 (Winter 2016, retroactive to Fall 2015), 431, 433, 434, 435, 436, 437, 438, 440 (Winter 2016, retroactive to Fall 2015), 442 (Winter 2016, retroactive to Fall 2015), 531, 532, 533
- ANATOMY 541
- NEUROL 455 (Winter 2016, retroactive to Fall 2015)
- NEUROSCI 470 (Winter 2016, retroactive to Fall 2015), 520.
- PHYSIOL 541
C. Optional Courses. Elect no more than one course from the following:
- ANTHRBIO 338 (Winter 2016, retroactive to Fall 2015)
- BIOLOGY 205; 207 (Winter 2016, retroactive to Fall 2015)
- MCDB 397, 401 (appropriate sections), 405, 408, 411, 417, 427, 428, 435, 436, 440 (Winter 2016, retroactive to Fall 2015), 441, 454 (Winter 2016, retroactive to Fall 2015), 462, 469;
- EEB 492;
- PSYCH 335 (Winter 2016, retroactive to Fall 2015), 338 (Winter 2016, retroactive to Fall 2015), 346, 420 (3 credits only), 430, 447, 448, 531, 541;
- Any STATS course that has STATS 250 as a prerequisite and is not used as a QR prerequisite
[Note: With the permission of an advisor, other upper-level courses that are highly relevant to neuroscience can be substituted.]

3. Lab requirement. At least two different courses for a minimum of four credits total from the following categories, with at least one course being a Methods-Based laboratory:
A. Method-Based Laboratory courses: Choose at least one course from:

- BIOLOGY 226
- MCDB 306, 308, 419, 423, 424, 429
- PSYCH 302.
B. Research-Based Laboratory Courses:
- MCDB 300, 400
- PSYCH 326, 331, 332, 422, 424/426, 428.

Note: Each course must be taken for a minimum of two credits each and be completed in a single academic term. Only three credits of independent study may count toward the major.

Students who take 6 credits of upper-level psychology lab courses related to neuroscience (Area D1 and D2) can receive a waiver for BIOLOGY 173

Advising. Students choosing Neuroscience as a field of the major develop an approved plan for the major with a department advisor who must approve the original plan for the major and any exceptions to the stated requirements for the major. Students should also consult a department advisor when planning the final term's elections to ensure that all requirements for the major have been met and to secure an advisor's approval on a Major Release form.

To make an advising appointment, go to:
www.Isa.umich.edu/neurosci/academics/advisingprogrampolicies
Honors Plan. The Neuroscience B.S. degree is the basis for the Honors degree in Neuroscience. Students must elect two terms of independent research (under PSYCH 424 \& 426, MCDB 300, or MCDB 400), maintain an
overall and GPA in the major of 3.4, complete an Honors thesis and give a research presentation based on their Honors work.

Prior to applying to the Neuroscience Honors Program students must identify a research mentor from the approved Neuroscience Honors Thesis Sponsor/Co-Sponsor Faculty list. Students may conduct Honors research with faculty in other units on the University of Michigan campus who are not on this list, but must have a formal co-sponsor relationship with a faculty member who is on the approved list.

Students apply to the Honors Program in Neuroscience by submitting a Neuroscience Honors Application with a research proposal. Neuroscience Honors applications are due by no later than the end of the add/drop
period one semester prior to graduation (i.e., approximately September 25 for students graduating at the end of Winter term, and approximately January 25 for students graduating at the end of the Fall term or Summer term). When special circumstances apply, the honors committee may accept an application beyond the normal due date. Upon approval by the chair of the Neuroscience Steering Committee students are declared into the Honors plan. Honors theses must be submitted by December 1, April 1, or August 1 of the term of graduation.

Written evaluations of the Honors thesis must be submitted by the mentor and up to two faculty readers. Honors theses must be submitted no later than one calendar month prior to the date of graduation.

# Organizational Studies 

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e-mail: org.studies@umich.edu
Organizational Studies is an interdisciplinary major, emphasizing the influence of economic, psychological, sociological, political, and other factors on individuals and complex organizational systems. The field is concerned with how organizational systems function, their effects on individuals and the larger society, and with the processes of organizational change.
The curriculum is designed to provide:
(1) core courses focusing on concepts fundamental to organizational theory and research;
(2) cluster and elective courses to provide breadth and depth in understanding links between the individual and organizations on the one hand, and organizations and society on the other; and
(3) courses designed to provide field-based experience in organizational research, analysis and practice.

The major is also designed to balance the study of challenging theoretical issues with diverse and refined methods of empirical inquiry.

Students may find this major appropriate preparation for careers or graduate work in business administration, consulting, communication, education, human resources, industrial and organizational psychology, public health, public policy, social and non-profit administration, the sociology of work and organizations, and related fields.

## Organizational Studies

May be elected as an interdepartmental major
Prerequisites to the Major. Students must complete one course in each of the following three areas:

1. Introduction to Economics (ECON 101)
2. Introduction to Psychology (PSYCH 111, 112, 114, or 115)
3. Introduction to Sociology (SOC 100, 101, 102, or 195).

All students should be aware that additional prerequisites are required for many of the upper-level courses in the OS curriculum. Depending on their particular area of interest, students may wish to complete additional entrylevel courses in political science, communication studies, women's studies, and/or economics as they prepare to apply to the OS Program.

Application. Students must apply for and be accepted into the major. Students are declared into the major by the department advisor only.
Application for the major can be submitted during the sophomore year. It is preferred that applicants have all three prerequisites completed at the time of application. At a minimum, to be eligible to apply, students must have completed (with final grades showing) at least two of the three prerequisite courses, and be currently enrolled in the third. Admission is very competitive and enrollment in the major will be limited to assure a high quality educational experience. Program faculty will make admission decisions based on a holistic review, with consideration given to overall grade point average at the time of application, with special attention given to grades in the three prerequisite courses, resume, and a personal statement written by the applicant.

Requirements for the Major. The major requires a minimum of 34 credits, distributed as follows:

1. Core requirements. Two courses are required [6 credits]:

- ORGSTUDY 305 Inside Organizations
- ORGSTUDY 310 Formal Organizations and Environments

2. Senior Capstone Research Requirement. ORGSTUDY 410 (or ORGSTUDY 498\&498 for Honors majors).
3. Cluster Requirements.

- 7 courses ( 21 credits minimum), chosen from Clusters A, B, and C:
- Two courses must be from Cluster A, two from Cluster B, and the remaining three from any cluster;
- Two of the cluster courses must be ORGSTUDY courses.

The cluster requirements are designed to provide disciplinary variety in the study of organizations, drawing on courses in a number of fields, and ranging across multiple levels of organizational analysis.
A. Organizations and Individuals (Cluster A) [Two course minimum]. Cluster A courses focus mainly on questions and topics concerning the organized behavior of individuals or the behavior of individuals in organizations. These courses may address the relations of individuals to larger structures such as the family or formal organizations, but their concern with the larger structures will typically remain the impact thereof on individual psychology or individual behavior.

A complete list of acceptable Cluster A courses is available on the Organizational Studies website.
B. Organizations and Society (Cluster B) [Two course minimum]. Cluster B courses are those that focus mainly on questions and topics concerning the organization of social groups (e.g., ethnic groups), historical processes (e.g., the rise of capitalism), and/or medium to large social structures (e.g., corporations, national governments, or global governing bodies). Although they may at times address the impact of such larger social structures and processes on individual behavior or may include attention to particular individuals from U.S. or world history, the primary concern of Cluster B courses is with questions about how social groups, historical processes, and social structures emerge, remain stable, and/or change.
A complete list of acceptable Cluster B courses is available on the Organizational Studies website.
C. Interest Cluster Courses (Cluster C) [minimum of 9 credits]. Cluster C courses are electives intended to allow majors to pursue their curriculum pathway interests in a more specialized way. These should have an organizational theme and can be of either the micro or macro variety, but are almost always more narrow and focused in their content.

A complete list of acceptable Cluster C courses is available on the Organizational Studies website.

Courses taken as ORGSTUDY 395 Current Issues in Organizational Studies, ORGSTUDY 490 Advanced Research Team, and ORGSTUDY 495 Special Topics may be included, when appropriate and in consultation with the department advisor, as a course in Cluster A, Cluster B, or Cluster C.
4. Quantitative Skills Requirements [3 credit minimum]. One course from the following:

- SOC 210
- STATS 250, 400, or 405
- ECON 404 or 405.

5. Electives (as needed). Students may choose electives from any requirement area on the OS curriculum list as needed to reach the overall 34 credit requirement for the OS major.

Additional courses may on occasion be used as part of the plan for the major with written approval from the department advisor.

Also, no more than six credits of upper-level independent study / experiential credit may count toward the major. ORGSTUDY 499 does not automatically count toward the major, but may be petitioned in individual cases.

Advising: Appointments may be scheduled with the department advisor, or the prospective student advisors via our online web scheduling system. See our homepage:
www.Isa.umich.edu/orgstudies.

## Organizational Studies Honors Plan

The Organizational Studies Honors Plan (OSHC) is designed to enable advanced undergraduate students to gain experience in the design, conduct, and analysis of research on organizations and organizational behavior. In the program, the Honors student will collaborate directly with a faculty mentor to complete an original research project. For students with strong academic records and an interest in research, the Honors program can serve as a capstone for undergraduate studies, and as important preparation for graduate studies or other future endeavors.

The Organizational Studies Honors Plan is focused solely on research skills and activities, and interested students should be certain that they have a serious interest in academic research and the capability and desire to complete a prolonged independent study project culminating in a major empirical research paper.

Formal Application to the OS Honors Plan. To qualify for the Honors plan, students must have a cumulative GPA of 3.5 or higher, and must maintain it through graduation. To apply to the OSHC, an application including a project proposal that has been approved by the faculty mentor must be submitted. Deadline for submitting OS Honors Plan application: First Friday in March of the junior year. If admitted, the student will enroll in the OS Senior Honors Research sequence in the senior year (ORGSTUDY 497 \& 498). These are independent study courses in which the student will work on research and a thesis with a faculty mentor, and together may replace ORGSTUDY 410 to fulfill the senior research capstone requirement.

Program Completion. The Honors student must submit the final thesis to the faculty mentor by the first Friday in March of their senior year, and also must present the findings at the OS Honors Symposium in early April.

Each thesis is evaluated by a faculty panel consisting of three readers: the faculty mentor, an independent faculty reader, and the OS Honors coordinator. The readers will complete their evaluation of the thesis by the end of classes. To receive an Honors designation on the college degree, the faculty readers must approve the thesis, and the Honors student must have a cumulative GPA of at least 3.40 at graduation.

Students interested in the Organizational Studies Honors Plan may obtain further information on the OS website.

## Philosophy

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www.Isa.umich.edu/philosophy
Philosophy is the systematic study of questions any thoughtful human being faces concerning the nature of knowledge, reality, thought, and value. What is valuable and what is value? What gives thought and language meaning? What is truth, and how can we know it? The main value of philosophy lies in its contribution to a liberal arts education. It can, however, also provide excellent preparation for a wide variety of professions (notably, law), because of the training it provides in rigorous thinking and incisive and clear writing. Philosophy cuts across other academic disciplines by examining their concepts, methods, and presuppositions. So a major or minor in Philosophy can also be a superb complement to a major in another field. Further details are available on the department's web page: www.Isa.umich.edu/philosophy.

The department also is the administrative home of the interdepartmental program in Philosophy, Politics, and Economics.

## Philosophy

## May be elected as a departmental major

Prerequisites to the Major. Any 100- or 200- level course other than PHIL 180, 201, 296 (logic courses). None of these courses counts toward the requirements for the major.

Major. Majors must take at least 25 credits of Philosophy. At least 16 credits, including requirement 5a, must be taken in residence. No course will count toward the major unless the student receives a grade of C - or better.

In fulfilling the credit requirement students must also satisfy the following distribution requirements:

1. Formal Methods: PHIL 296, 303, 305, 413, or 414
2. History of Philosophy: PHIL 388 or PHIL 389 and one additional course from among: PHIL 371, 388, 389, 405, 406, 458, 460, 461, 462, 463, 464, 467 , and 492
3. Value: One of PHIL 361 (Ethics) or 366 (Political Philosophy) or 367 (Social and Political Philosophy) or PPE 300 (Introduction to Political Economy)
4. Mind and Reality: Either PHIL 345 (Language and Mind) or 381 (Science and Objectivity) or 383 (Knowledge and Reality)

## 5. Three additional courses:

a. Two additional 400-level courses (other than PHIL 419, 455, 498, or 499). Note: students are not permitted to use any course to satisfy more than one requirement. For example, if you use a 400 -level course to satisfy the logic or history requirements, you cannot use that same course to satisfy this requirement.
b. One additional course at the 300-level or higher, such as PHIL 345 (Language and Mind) or 383 (Knowledge and Reality).

The courses needed to satisfy these requirements are not always offered every term. Majors should plan their programs so that they can be sure to take the courses they need before they can graduate.

Honors Plan. Qualified students who are interested in an Honors plan in Philosophy should consult a department advisor as early as possible. Except in cases where special permission is granted, students must have a cumulative grade point average of at least 3.4 and a 3.5 average in completed courses in philosophy in order to be eligible for admission. Honors majors are required to complete 28 (rather than 25) credits in the major, including PHIL 401 and 498 or 499, which is taken in the senior year. Before enrolling in PHIL 498 or 499, students must submit a thesis proposal
for the department's approval. Only students who have written an Honors thesis will be considered for graduation with Honors degrees. Students are admitted to the Honors plan at the beginning of the junior year (or later) by permission of the Honors department advisor.

Advising. Prospective majors, especially Honors students and students contemplating graduate work in philosophy, should consult a department advisor as early as possible in order to work out an appropriate, unified program. Appointments are scheduled through the on-line scheduling system available on the department's web page:
www.Isa.umich.edu/philosophy/undergraduate/advisorappointments

## Minors in Philosophy

A minor in Philosophy is not open to students with a major in Philosophy
Students wishing to pursue a minor in Philosophy must develop a specific plan for its completion in consultation with the department's designated advisor. Appointments are scheduled through the on-line scheduling system available on the department's web page:
www.Isa.umich.edu/philosophy/undergraduate/advisorappointments
The Philosophy Minors are designed to provide students with an education in philosophy that will complement a major in some other discipline and that will, among other things, illuminate philosophical issues that arise in that other discipline. Because students who elect a minor in philosophy will have a variety of philosophical interests, the department offers a choice of a number of distinct minors namely:
(a). General Philosophy;
(b). History of Philosophy;
(c). Moral and Political Philosophy;
(d). Mind and Meaning; and
(e). Epistemology and Philosophy of Science.

The specialized minors (b)-(e) focus on particular areas within philosophy, and complement several different majors.

The General Philosophy minor aims to provide students basic philosophical skills and training, exposure to rigorous core courses, and some advanced work, but does not aim for the breadth and comprehensiveness of the major or for depth in any particular area.

The History of Philosophy minor aims to provide students both a comprehensive foundation in the central evaluative and theoretical philosophical areas, which are required in order to best appreciate the history of philosophy, and broad study of the history of philosophy. It is aimed at students with serious interests in the history of philosophy, or in studying philosophy from an historical perspective, but who, for various reasons, are unable to concentrate in philosophy. This minor will enable them to develop their interests in a way that assured they had sufficient background in the main philosophical areas, as well as significant breadth and depth in the history of philosophy.

The Moral and Political Philosophy minor aims to give students a basic foundation in general philosophy, core systematic training in either moral or political philosophy, along with broad study across a range of areas in moral and political philosophy and intensive advanced-level work. It should appeal to students who want to study moral and political philosophy in conjunction with other majors, for example, Political Science, Sociology, and Economics, or want to study the subject for pre-professional reasons (e.g., because they are interested in ethical issues concerning medicine or the law).

Fundamental issues of metaphysics, epistemology, and the philosophies of language and mind arise in connection with many majors, such as Psychology, Linguistics, and the sciences. The Mind and Meaning minor will provide students who cannot concentrate in Philosophy a systematic way to pursue and develop these interest. It aims to give students a basic
foundation in philosophy, logical skills necessary to do serious study in the areas of metaphysics, epistemology, philosophy of language and philosophy of mind, and rigorous exposure and advanced-level work in some subset of these areas.

The minor in Epistemology and Philosophy of Science is designed to provide a basic familiarity with the philosophical problems and techniques in these fields. The minor offers an opportunity for students to develop basic skills of philosophical reflection and argument in the context of questions about ordinary as well as scientific knowledge. The intended audience for this minor includes students majoring in scientific or mathematical disciplines who wish to explore the philosophical aspects of their subject, as well as students who have a more general interest in theory of knowledge or philosophy of science - including, for example, students of literature, history, anthropology, or sociology - who wish to acquire the necessary background to understand recent debates relating to the sociology of knowledge.

Constraints: At least nine credits, including the required 400-level course, must be taken in residence. No course will count toward the minor unless the student receives a grade of C - or better.

Prerequisites to the Minor: One general introduction to Philosophy: Any 100- or 200- level course other than PHIL 180, 201, 296 (logic courses).

Requirements for the Minor: Minors must take at least 15 credits of Philosophy, in one of the following patterns.

## COMMON REQUIREMENTS FOR ALL PHILOSOPHY MINORS

1. At least one course at the 400-level, other than formal methods (PHIL 413, 414).
2. A minimum of 15 credits of Philosophy, at least 9 of which (including the required 400 -level course) must be taken in residence.
3. No course will count toward the minor unless the student receives a grade of C - or better.

## SPECIFIC REQUIREMENTS FOR EACH PHILOSOPHY MINOR

1. General Philosophy
a. One course in Logic or Formal Methods (PHIL 180, 201, 296, 303, 305,413 , or 414)
b. Two courses from: PHIL 345, 361, 365, 366, 367, 381, 383, 388, 389
c. One 400-level course, which must not include PHIL 401, 402, 413, 414 , or 455
2. History of Philosophy
a. Either PHIL 345, 361, 366, 367, or 383
b. PHIL 388 or 389
c. One additional course from: PHIL 388, 389, 405, 406, 458, 460, 461,462 , and 464
d. One additional course from " $c$ " expanded to include: PHIL 371, $385,433,463,466,467,474,492$
3. Moral and Political Philosophy
a. One of PHIL 361 or 366 or 367 or PPE 300
b. Three additional courses from: PHIL 355, 356, 359, 361, 366, 369, $385,429,430,431,433,442,443,485$ (at least one course must be at the 400-level)
4. Mind and Meaning
a. Formal Methods: One course in symbolic logic: PHIL 296, 303, 305, 413 , or 414
b. PHIL 345,381 , or 383
c. Two additional courses from: PHIL 340, 345, 383, 409, 450, 481, 482 (at least one course must be at the 400 -level)
5. Epistemology and Philosophy of Science
a. One course in symbolic logic: PHIL 296, 303, 315, 413, or 414
b. PHIL 345,381 , or 383
c. Two other courses from: PHIL 320, 322, 381, 383, 420, 422, 423, $424,425,427,443,477$. At least one course must be at the 400level, other than formal methods (PHIL 413, 414).

# Program in Philosophy, Politics, and Economics 

Philosophy Department
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Philosophy, Politics, and Economics is an Interdepartmental Program administered by the Philosophy Department in conjunction with the Departments of Political Science and Economics., and supervised by the PPE Interdepartmental Steering Committee.

| Philosophy, <br> Politics, and <br> Economics (PPE) | Philosophy <br> Department | Political Science <br> Department | Economics <br> Department |
| :--- | :--- | :--- | :--- |
|  | 2215 Angell Hall | 5700 Haven Hall | 238 Lorch Hall |
|  | 435 South State Street | 505 South State Street | 611 Tappan |
|  | Ann Arbor, MI | Ann Arbor, MI | Ann Arbor, MI |
|  | $48109-1003$ | $48109-1045$ | $48109-1220$ |
|  | (734) 764-6285 (phone) | (734) 764-6313 (phone) | (734) 764-2355 (phone) |
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| www.Isa.umich.edu/ | www.Isa.umich.edu | www.Isa.umich.edu | www.Isa.umich.edu |
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The major in Philosophy, Politics, and Economics (PPE) aims to offer rigorous, integrated, interdisciplinary training for students who are interested in exploring questions that lie at the intersection of philosophy, political science, and economics. Because it demands cultivation of expertise in three disciplines, including considerable training in formal methods, students must meet high standards of academic achievement. For this reason, the major will require an application. The program also is intended to be small, to provide extensive opportunities for discussion and cooperative learning in small-group settings.

## Philosophy, Politics, and Economics

May be elected as an interdepartmental major, administered by the Department of Philosophy

The Department of Philosophy, in conjunction with the Department of Economics and the Department of Political Science, offers PPE as an interdisciplinary major in political economy. The program will stress analytic rigor and critical reasoning, and is unique in combining normative inquiry, empirical methods, and formal tools of analysis. It integrates the study of the relationships of government, political processes, property, production, markets, trade, and distribution from the standpoint of assessing these arrangements with respect to the interests and progress of humanity. The following features are characteristic of research in political economy:

- Exploration of the relations between individual action and collective outcomes as they shape and are shaped by environmental conditions, institutions, social norms, ideologies, and strategic and communicative interaction
- Special attention to the consequences of these relations for politics (voting, political parties, lobbying, elections, social movements, revolution, civil war, state failure, oligarchy, dictatorship, corruption, etc.), law and economic policies (taxation, regulation, property and trade regimes, macroeconomic management, etc.), aggregate economic outcomes (business cycles; the provision, degradation, or maintenance of public goods, etc.), and justice and human welfare (poverty, inequality, intergroup relations, freedom, etc.)
- Formal methods of analysis including decision theory, game theory, evolutionary game theory, behavioral economics, and agent-based modeling; the use of analytic frameworks (such as principal-agent problems and positional competition) to understand characteristic
problems that arise for human beings across disparate domains of action
- Critical reflection on the uses and limits of these methods and frameworks in light of empirical information and interpretations drawn from other disciplines, including history, psychology, and sociology, as well as normative and conceptual analysis
- Integration of formal, empirical, interpretive, and normative inquiry to evaluate and design existing and alternative economic systems, constitutions, smaller-scale institutions, organizations, and social norms with a view toward improving their justice and service to human welfare.

The PPE major provides Michigan undergraduates with a rigorous, integrated, and interdisciplinary program of study that brings together three major approaches to understanding human beings and their social and political interactions. Core courses will expose students to a wide range of analytical tools and research methods in the social sciences, and will seek to foster the critical reasoning and rhetorical skills that are essential for philosophical writing and argumentation.

Advising. PPE is governed by the director of PPE and a PPE committee composed of one faculty member from each of Philosophy, Economics, and Political Science. It is administered by the Philosophy Department. PPE advising is managed by the Undergraduate Studies Committee in Philosophy. Appointments with a department advisor may be scheduled online at:
https://www-a1.Isa.umich.edu/advappts/AA_StuSelfSvc1.aspx?ctgy=PHIL.
Application. Students must apply for and be accepted into the major. Students are declared into the major by a department advisor only.

Due to the rigorous and interdisciplinary nature of its subject matter, and to ensure a high quality educational experience, the PPE program will be selective (as it is in many other PPE programs in the U.S.) and require an application. Applications are considered once each Fall and Winter academic terms. Application deadlines will be announced on the PPE website. Students may apply for admission to the major as early as the winter term of their second year. Second-year applicants must have completed (with final grades showing) at least the prerequisites to the major, and should be enrolled in, or have completed, at least one further course that can be counted toward the major. Students who apply in the fall of their junior year must have completed the prerequisites and be enrolled in, or have completed, at least two further courses that can be counted toward the major. Admissions will be based on the grade point average in the prerequisite courses and other courses satisfying PPE requirements, overall grade point average, and a brief personal statement. Admission to PPE is conditional on earning C - or better in all prerequisites.

## Prerequisites to the Major.

1. One 100- or 200-level PHIL course other than PHIL 180, 201, 296 (logic)
2. One introduction to political science: POLSCI 101 or 111 or 140 or 160
3. ECON 101 and ECON 102
4. Calculus (MATH 115, 116, 121, 156, 175, 176, 185, 186, 215, 295, or 296)

Requirements for the Major. The major consists of 12 courses. At least 16 credits must be taken in residence. No course will count toward the major unless the student receives a grade of C - or better.

## Courses must be distributed as follows:

## 1. PPE Core Courses:

A. Economics: ECON 401: Intermediate Microeconomics
B. Gateway: PPE 300: Introduction to Political Economy
C. Capstone: PPE 400: Senior Seminar in Political Economy (Honors students take PPE 401-402 instead)
2. Core Distribution Requirements. PPE integrates normative inquiry and formal analytical tools with the substantive study of politics and economics. The PPE major therefore requires two courses each in normative theory, political economy, and formal methods.
A. Formal Reasoning: one course in statistics and one additional course in statistics, logic, decision theory, or game theory from the list below.
i. One course in statistics: Choose from among:

- ECON 404: Statistics for Economists
- ECON 405: Introduction to Statistics
- STATS 250: Introduction to Statistics and Data Analysis
- STATS 426: Introduction to Theoretical Statistics
ii. A course in other formal methods central to political economy - statistics, logic, decision theory, or game theory from the following:
- ECON 398: Strategy
- ECON 409: Game Theory
- PHIL 296: Honors Introduction to Logic
- PHIL 303: Introduction to Symbolic Logic
- PHIL 305: Introduction to Formal Philosophical Methods
- PHIL 413: Formal Philosophical Methods
- PHIL 414: Mathematical Logic
- PHIL 443: Foundations of Rational Choice Theory
- POLSCI 381: Political Science Research Design
- POLSCI 391 / CMPLXSYS 391: Introduction to Modeling Political Processes
- POLSCI 488: Political Dynamics
- POLSCI 490: Game Theory and Formal Models
- POLSCI 499: Quantitative Methods of Political Analysis
- CMPLXSYS 391 / POLSCI 391: Introduction to Modeling Political Processes
- MATH 425 / STATS 425: Introduction to Probability
- STATS 425 / MATH 425: Introduction to Probability
B. Normative Theory: two 300 - or 400 - level courses in political philosophy, political theory, or welfare economics from the list below:
- ECON 408 / PHIL 408: Philosophy and Economics
- ECON 496. History of Economic Thought
- PHIL 359: Law and Philosophy
- PHIL 361: Ethics
- PHIL 366: Introduction to Political Philosophy
- PHIL 367: 19th Century Social and Political Philosophy
- PHIL 369: Philosophy of Law
- PHIL 408 / ECON 408: Philosophy and Economics
- PHIL 430: Topics in Ethics
- PHIL 431: Normative Ethics
- PHIL 433: History of Ethics
- PHIL 441: Social Philosophy
- PHIL 442: Topics in Political Philosophy
- PHIL 445: Philosophy of Law
- POLSCI 301: Development of Political Thought: To Modern Period
- POLSCI 302: Development of Political Thought: Modern and Recent
- POLSCI 306: American Political Thought
- POLSCI 400: Selected Topics in Political Theory (appropriate sections)
- POLSCI 401 / WOMENSTD 422: Feminist Political Theory
- POLSCI 402: Liberalism and Its Critics
- POLSCI 403 / CLCIV 403: Greek Political Thought
- POLSCI 404: Foundations of Modern Political Thought
- POLSCI 405: Political Philosophy of the Enlightenment
- POLSCI 409: Twentieth Century Political Thought
- POLSCI 495: Undergraduate Seminar in Political Theory (appropriate sections)
- CLCIV 403 / POLSCI 403: Greek Political Thought
- WOMENSTD 422 / POLSCI 401: Feminist Political Theory
C. Political Economy: two courses engaging the economics of government or the politics of economic activity or institutions from the list below.
- ECON 330: American Industries
- ECON 398: Strategy
- ECON 402: Intermediate Macroeconomic Theory
- ECON 408 / PHIL 408: Philosophy and Economics
- ECON 409: Game Theory
- ECON 425 / POLSCI 425: Inequality in the United States
- ECON 432: Government Regulation of Industry
- ECON 481: Government Expenditures
- ECON 482: Government Revenues
- PHIL 408 / ECON 408: Philosophy and Economics
- POLSCI 322: Legislative Process
- POLSCI 337: Comparative Constitutional Design
- POLSCI 340: Governments and Politics in Western Europe (section titled "A Game-Theoretic Approach to West European Politics")
- POLSCI 341: Comparative Politics of Developed Democracies
- POLSCI 343: Political Economy of Developed Democracies
- POLSCI 348: Political Economy of Development
- POLSCI 363: International Organization \& Integration
- POLSCI 364: Public International Law
- POLSCI 369: Politics of International Economic Relations
- POLSCI 387: Comparative Analysis of Government Institutions
- POLSCI 389: Topics in Contemporary Political Economy (section titled "Political Strategy \& Debate")
- POLSCI 391 / CMPLXSYS 391: Introduction to Modeling Political Processes
- POLSCI 425 / ECON 425: Inequality in the United States
- POLSCI 432: Law and Public Policy
- POLSCI 462: Strategic Interaction in World Politics
- POLSCI 496: Undergraduate Seminar in American Government and Politics (sections titled "U.S. State Economic Development Policies", "Modern Debates in U.S. Constitutional Law")

3. Themes: three additional courses (or two additional courses plus the Honors thesis sequence for Honors students) in a single theme in political economy. At least two of these courses must be at the 400level, and two must come from distinct academic disciplines. PPE students are advised to start planning their themes as soon as they are admitted to the major.

Students will devise a plan for advanced study focusing on a single theme in political economy, which may be normative, methodological, theoretical, or applied. Each student will write up a rationale for their theme in consultation with their PPE advisor and submit it to their advisor for approval. Possible themes could include advanced studies in any of the core areas, or focus on particular subjects/methods - for example, decision-making \& strategic interaction, globalization, justice \& equality, or comparative political economy.

Courses listed under the core requirements may be used to satisfy the theme requirement as long as they are not also being used to satisfy the core requirement.

The PPE committee will recommend courses for the theme requirement and post those to the PPE website. Students may propose courses not on the list that make a coherent fit with their theme. PPE advisors are authorized to approve such courses for the theme requirement.

Honors Plan. In addition to fulfilling the prerequisites, PPE core, and distribution requirements, Honors students will take two courses in their theme and dedicate their thesis to a research project in that theme. Honors students take PPE 401-402 as their capstone course.

To be admitted to the Honors PPE program, students must have at least a 3.5 cumulative GPA and a 3.5 in courses used to satisfy PPE requirements, or permission of the director of PPE. Prospective PPE Honors students should begin planning their Honors program with their advisor as soon as possible

Honors students will submit a thesis proposal for approval by the director of PPE. They will write a thesis in their theme under one of the following options:

- PPE 401 (thesis preparation seminar) and PPE 402 (an independent study thesis-writing course under the principal supervision of a faculty member in one of the three departments).
Honors in PPE (PPE 401-402) will initially be run as meet-togethers with the respective Honors offerings of the three departments, and Honors PPE students will sort themselves into the different Honors thesis courses according to their primary disciplinary orientation. Thus, Honors PPE students may take PPE 401 as a meet-together with PHIL 401, POLSCI 493, or ECON 495 (the respective thesis-prep courses for each department). In the second term of their Honors sequence, PPE students will continue with PHIL 499 or POLSCI 494, if their theses are
oriented to philosophy or political science, and may continue with ECON 495/498, if their economics-oriented thesis calls for a second academic term of work.
- ECON 495: Seminar in Economics or ECON 498: Honors Independent Research for students intending to write an economics-oriented Honors thesis for PPE. Most economics-oriented PPE theses would be expected to enroll in ECON 495, which is the primary Honors thesis vehicle for economics majors.

Honors will be awarded by a two-person committee consisting of the student's advisor plus a second reader in one of the other units, on the basis of the written thesis and an oral defense.

## Physics

2477 Randall Laboratory
450 Church Street
(734) $764-4437$ (phone)
(734) $763-9694$ (fax)
www.Isa.umich.edu/physics
e-mail: physics.sso@umich.edu

The University of Michigan has one of the country's premier programs for the training of undergraduate and graduate students in physics. The Physics Department has abundant facilities for instruction in physics and offers a wide variety of experimental and theoretical research programs open to undergraduate and graduate students.

Undergraduates majoring in physics have several degree choices:

- Physics (B.S.)
- Interdisciplinary Physics (A.B. or B.S.)
- Honors Physics Program
- Physics Minor

Interested undergraduates may also want to look into work in medical physics (a promising path for pre-med students) in the Applied Physics program, or in the Engineering Physics program.

The analytical and quantitative thinking skills you will develop as you work toward any of these degrees will be of great value in many different careers. Most physics majors at U-M follow one (or more) of three paths after graduation:

- graduate work in physics or another field
- employment in industry, software development, or associated field
- professional school in medicine, business, law, or associated area.

Teaching Certificate. LSA students may earn an A.B. or B.S. in Interdisciplinary Physics with a focus on teacher certification through the College of LSA and School of Education. Students who wish to earn a secondary teaching certificate in physics should schedule a physics advising appointment before applying to the SOE certification program through the Office of Undergraduate Admissions website. (Note: Students are encouraged to apply their sophomore year. The application deadline is October 15.)

Advising. Students with any questions about courses or majors in Physics should speak with Physics department advisors. Advising appointments can be scheduled in the Physics Student Services Office, 1440 Randall Lab [(734) 764-5539] or via the online advising calendar:
www.Isa.umich.edu/physics/academics/undergraduateprogram/advising
Programs. The Department of Physics offers: (1) a Major in Physics (Honors); (2) a Major in Interdisciplinary Physics (Honors); (3) a minor in Physics.

A total of 60 credits of mathematics and natural science must be elected to receive the Bachelor of Science degree.

## Physics (BS)

May be elected as a departmental major
The undergraduate curriculum in Physics is designed to provide a thorough introduction to our current understanding of the physical world. It prepares students for quantitative analysis of the world. The Physics BS degree provides strong preparation for graduate study in Physics and related fields. It also prepares students for direct entry into the job market in a wide variety of technical, analytic, and education settings.

## Prerequisites to the Major

- PHYSICS 135/136 and 235/236 or PHYSICS 140/141 and 240/241 (or PHYSICS 160/161 and 260/261); and
- PHYSICS 340 and PHYSICS 351.

Students interested in majoring in Physics should have an understanding of mathematics through differential equations.

Requirements for the Major. At least 29 credits in PHYSICS numbered 390/391 and above. The Physics Department requires no less than 15 credits toward the major be completed in residence.

The major must include:

1. Core: PHYSICS 390/391, 401, 405, 406, and 453.

PHYSICS 390, 401, 405, 406, and 453 must be completed with a minimum grade of a $C$ - in each course and a cumulative average of $C$ or higher.
PHYSICS 390/391 can be taken concurrently with PHYSICS 401 or 405; PHYSICS 401 and 405 should precede PHYSICS 453; PHYSICS 453 is a prerequisite to most courses numbered above.
2. Advanced Laboratory: Any two of PHYSICS 441, 442, or 450.
3. Electives: Two courses from among PHYSICS 402, 411, 413, 417, 430, $433,435,438,452,457,460,463$, and 470.

PHYSICS 419, 420, 481, and 489 may not be used to satisfy the B.S. degree requirements.

Honors Plan. Students who have a cumulative grade point average of at least 3.4 are encouraged to elect an Honors plan in Physics. In addition to the regular departmental requirements for major, candidates for an Honors plan must elect six credits of PHYSICS from courses numbered 401 and above which are not otherwise required and must also complete a senior Honors thesis based on research (PHYSICS 498/499) done under the supervision of a faculty member.

## Interdisciplinary Physics (AB or BS)

May be elected as a departmental major
Modern science is increasingly interdisciplinary. The Interdisciplinary Physics major allows students the flexibility to supplement their core study of physics with courses in complementary fields. This major can be effective preparation for graduate study in the sciences, for medical, law, and business schools, or for direct entry into the job market. Because students pursuing the Interdisciplinary Physics degree have a wide variety of career goals, advising from a Physics department advisor is especially important.

It is intended that the flexibility allowed by this program should be used in a well thought out and effective way. To declare a major in Interdisciplinary Physics a student must develop an individual plan with a department advisor. The courses selected should form a coherent program of study.

Examples of possible programs of study include Statistics, Astrophysics, Philosophy, Cosmology, Economics and Finance, Quantum Computing, Biology, Chemical Physics, Nanotechnology, Medical Physics, Environmental Physics, Global Change, Geophysics, Mathematical Physics, Science Writing, Science Policy, Physics of Technology, Applied Physics, Computational Physics, Physics Education, or Industrial Physics. Possible course selections in each of these areas can be viewed in a document available on the department website.

## Prerequisites to the Major

- PHYSICS 140/141 and 240/241 (or PHYSICS 125/136 and 126/236, or PHYSICS 135/136 and 235/236, or PHYSICS 160/161 and 260/261); and
- PHYSICS 340 and PHYSICS 351.

Students interested in majoring in Interdisciplinary Physics should have an understanding of mathematics through differential equations.

Requirements for the Major. At least 26 credits, including at least 11 in PHYSICS courses numbered 390/391 and above. The Physics Department
requires no less than 12 credits toward the major be completed in residence.

The major must include:

1. PHYSICS 390/391.
2. Two additional Physics courses at the 400 level and beyond.

PHYSICS 390/391 and these 400-level Physics course must be completed with a minimum grade of a C - in each course and a cumulative average of C or higher.
3. Fifteen credits of cognate courses as part of an interdisciplinary plan designed with the approval of a Physics department advisor. Nine of these credits should be at the 200 level or above.

Honors Plan. Students who have a cumulative grade point average of at least 3.4 are encouraged to elect an Honors plan in Interdisciplinary Physics. In addition to the regular departmental requirements for the major, candidates for Honors must elect an additional three credits of PHYSICS from courses numbered 401 and above which are not otherwise required and elect an additional 3 credit course as part of the cognate program. They must also complete a senior Honors thesis based on research (PHYSICS 498/499) done under the supervision of a faculty member. Some students in this degree line are pursuing interdisciplinary or dual degrees. Students wishing to complete an Honors senior thesis with a faculty member outside the Physics Department must meet with a department advisor for prior approval.

## Physics Minor

A minor in Physics is not open to students with any major in the Department of Physics.

The minor is designed to allow students from a wide range of academic backgrounds to learn more about the physical universe. Students who elect to minor in Physics will gain an understanding of basic physical principles.

Students wishing to pursue a minor in Physics must develop a specific plan for its completion in consultation with the department's designated advisor. Advising appointments can be scheduled in the Physics Student Services Office, 1440 Randall Lab [(734) 764-5539] or via the online advising calendar.

Students interested in minoring in Physics should have an understanding of mathematics through differential equations.

## Prerequisites to the Minor: None

Requirements for the Minor: 18 credits of courses as follows:

1. One of the following introductory sequences and labs:

- PHYSICS 135/136 and 235/236
- PHYSICS 140/141 and 240/241
- PHYSICS 160/161 and 260/261

2. PHYSICS 340
3. PHYSICS 390/391.

## Advanced Placement Credit and the Physics minor

Although course credit for PHYSICS $125 / 126 / 127 / 128$ or PHYSICS 140/141/240/241 may be awarded on Advanced Placement (AP) Physics exams B or C, LSA policy does not allow those AP credits to be counted toward the minimum credits required for a minor. To qualify for the minor, students with AP exam credit must complete additional eligible courses within the Physics department for a total of at least 15 PHYSICS course credits. Eligible courses include PHYSICS 333 and 334 (Tutoring of PHYSICS 140 and 240), and PHYSICS 401. Other 400-level PHYSICS courses may also be used, subject to approval by a department advisor.

To get your AP Credit, please schedule an appointment with a department advisor as soon as possible.

## Molecular and Integrative Physiology

Molecular and Integrative Physiology
U-M Medical School
7744 Medical Science II
1301 East Catherine Street
(734) 763-5727 (phone)
medicine.umich.edu/dept/molecular-integrative-physiology
The essential concern of physiology is how living things work and, as physiology relates to man, it is the study of the normal functioning of the
human body. The methods and tools of physiology are those used in the experimental sciences, and its range cuts across many different scientific disciplines. Physiology emphasizes the basic functions of organs, the interactions and coordination of these diverse functions, and attempts to analyze these functions in terms of physical and chemical processes. A knowledge and understanding of the functioning of the body and its component parts is an essential part of a general education.

## Political Science

5700 Haven Hall
(734) 764-6313 (phone)
(734) 764-3522 (fax)
www.Isa.umich.edu/polisci
e-mail: polisci@umich.edu
Political science is the systematic study of governmental and political structures, processes, and policies. This study uses institutional, quantitative, and philosophical approaches. The field is highly diverse, ranging across political theory, comparative government, international relations, American government, public policy, and research methods. Political scientists concentrate on public opinion and voting, organized political behavior, governmental institutions, studies of single countries, comparisons across countries and relations among countries. The field addresses both normative and empirical concerns.

## Roster of POLSCI subfields and courses:

American 111, 300, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, $320,321,322,323,324,326,327,329,330,331,332,333,334,335$, 380, 385, 410, 432, 482, 484, 486, 496
Comparative 140, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, $347,348,349,350,351,352,353,354,355,356,357,358,359,382$, 387, 395, 396, 397, 451, 497
Methods 381, 391, 488, 490, 499
Theory 101, 301, 302, 306, 307, 308, 309, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 495
World 160, 360, 361, 363, 364, 365, 368, 369, 370, 371, 372, 379, 462, 463, 498
Advising. Students can schedule an appointment to declare their major, get assistance with plan requirements, and obtain a senior release at www.lsa.umich.edu/polisci

## Political Science

May be elected as a departmental major
Updated 3/21/2016 Effective Fall 2016

## Prerequisites to the Major

Students should prepare for advanced study in the discipline by completing two of the following introductory courses:

- POLSCI 101: Introduction to Political Theory
- POLSCI 111: Introduction to American Politics
- POLSCI 140: Introduction to Comparative Politics
- POLSCI 160: Introduction to World Politics

In rare circumstances, departmental advisors may approve the use of an upper level course to meet the prerequisite.

## Requirements for the Major

At least 30 credits in POLSCI at the 300 level or above (in addition to required prerequisites).

Core courses must be elected from the 300 -level or higher and include at least:

- two POLSCI courses at the 400-level
or
- one 400 -level POLSCI course and one ULWR POLSCI course.

Students are encouraged to elect an undergraduate topics seminar at the 400 level (POLSCI 495,496, 497, or 498) in their senior year.
Political science majors are expected to acquire an appreciation of the diverse styles of political inquiry by electing at least one course in four of the following five subfields: political theory, American government, comparative politics, world politics, and methodology. Coursework from
both the prerequisite and upper level courses are used to meet this requirement. STATS 250 does not count toward methods requirements for the major.
Ann Arbor Campus Requirement. At least 12 credits must be taken on the Ann Arbor campus.

Exclusions. Only eight credits of Experiential and Independent Study credit may be included in the major. Only four of these credits can come from POLSCI 399.

Only 12 credits of study abroad coursework in political science may be counted toward the major. Students are encouraged to seek preapproval of study abroad selections.

Teaching Certificate. Students interested in obtaining a secondary teaching certificate with a teaching major or minor in Political Science should consult the "Teacher Certification Program" section in this Bulletin and the School of Education Teacher Education office, 1228 School of Education Building, (734) 615-1528.

Honors Plan. Especially well-qualified students are encouraged to undertake an Honors plan, which involves preparing a thesis under the direction of a faculty member. To become eligible for the Honors plan, students must take POLSCI 381 before their senior year. During the senior year, students enroll in a proseminar in which they prepare the thesis.
The department collects applications to the Honors plan during the winter of each academic year. Students usually apply during their junior year. Sophomore majors who have completed POLSCI 381 may apply during their sophomore or junior year. To be admitted to the Honors plan, students must have:

- received an A-range grade in POLSCI 381,
- a grade point average of 3.5 or higher both overall and in Political Science courses,
- secured a faculty member as a thesis advisor,
- written a thesis research proposal (which is generally done in POLSCI 381).

The Honors plan requires at least 34 credit hours of POLSCI coursework at the 300 level or above and must include the following:

- POLSCI 381: Political Science Research Design
- POLSCI 493 : Senior Honors Proseminar (fall only)
- POLSCI 494: Senior Honors Proseminar (winter only)
- at least one course in four of the following five subfields: political theory, American government, comparative politics, world politics, and methodology.

A student must end their undergraduate career with at least a 3.5 GPA in political science coursework and a 3.4 overall GPA in order to receive any level of Honors with their diploma.

## Political Science Minor

A minor in Political Science is not open to students with a major in the Department of Political Science.

Students wishing to pursue a minor in Political Science must develop a specific plan for its completion in consultation with the department's designated advisor. Advising appointments are scheduled by going to the Political Science website:
polisci.Isa.umich.edu or by contacting the department office.
The minor in political science gives students training in a rigorous discipline and way of thinking and understanding problems. This is an indispensable part of any liberal arts major. Political Science gives students a better understanding of the way public affairs are conducted and a more practical knowledge of how citizens, elected representatives, judges, and administrators approach the decisions they are called upon to make. A
minor in political science prepares students to become more active citizens by training them to become astute and informed observers of political behavior in their own country and around the world.

## Prerequisites to the Minor

Students should prepare for advanced study in the discipline by completing two of the following introductory courses:

- POLSCI 101: Introduction to Political Theory
- POLSCI 111: Introduction to American Politics
- POLSCI 140: Introduction to Comparative Politics
- POLSCI 160: Introduction to World Politics

In rare circumstances, departmental advisors may approve the use of an upper-level course to meet the prerequisite.

## Requirements for the Minor

In addition to the prerequisite courses, students who wish to complete the minor in Political Science must complete five POLSCI courses at the 300 level or above for a minimum of 15 credits.

The minor in Political Science is a structured course of study. A sustained focus on two disciplinary subfields makes it possible for students to acquire this structure without completing a full major. Therefore, core courses in the minor must be taken in the same subfield (political theory, American politics, comparative politics, or world politics) as the prerequisite courses.

At least three of the five upper level courses must be taken on the Ann Arbor campus.

Only three credits of Experiential and Independent Study credit may be included in the minor.

## Michigan in Washington Program (MIW)

5700 Haven Hall
(734) 615-6491 (phone)
(734) 764-3522 (fax)
www.Isa.umich.edu/michinwash
e-mail: MIWDC@umich.edu
The MIW program offers an opportunity each year for 45-50 undergraduates from any major to spend a semester (Fall or Winter) in Washington. The program provides a chance for students to combine coursework with an internship that reflects each student's particular area of interest such as American politics, international studies, history, the arts, public health, economics, the media, the environment and science and technology. Students gain access to local Washington experts through speaker courses, internships, contacts with U-M alumni and alumnae, and other networking opportunities made available through the program.

## Internships

Students are free to pursue internships at any organization. They are coached in internship searching strategies as part of the prep class that is taken the semester before going to D.C. In addition to Congressional internships, students have interned at the White House, Smithsonian, CNN, Brookings Institution, American Enterprise Institute, National Defense University, Center for American Progress, Children's Defense Fund among others.

## Academic Requirements

Most students admitted to the program are of junior or senior standing, with a cumulative grade point average of at least 3.0.

- Students participate in a Prep Class (2 credits) prior to leaving for Washington. The Prep Class (which is held one evening a week for 3-4 weeks) focuses on the student's internship search, interview techniques, and negotiation skills.
- The Research Seminar (4 credits) is the core course of the program. Students are expected to produce a substantial research paper on a topic of their choosing and interest. Credit for the research course can be earned in Political Science or other departments with faculty oversight and prior arrangements.
- Students receive 2 credits for internships. Typical work hours are Monday through Thursday, 9-5. Credit for the internship can be earned in Political Science or other departments with prior arrangements.
- The Washington Experience course ( $\mathbf{1} \mathbf{c r e d i t}$ ) is a requirement which features prominent local speakers.
- Electives ( 3 credits) are taught by U-M faculty and faculty from other schools sharing the residence hall (University of Pennsylvania, University of California, Washington University). Students may take up to 2 electives.


## Housing

Students admitted to the MIW program live in the UCDC Washington Center, near DuPont Circle and less than a mile from the White House. This modern facility is in a vibrant residential and commercial area. Students from the University of Pennsylvania and Washington University also live in the building. The Metro system and walking are the primary methods of transportation. Meals are not included.

## Mentors

Each MIW student is assigned to a mentor in D.C. who is a U-M graduate and professional. Mentors meet students regularly throughout the term for lunch, MIW events, and weekend excursions.

## Costs

Participants are registered as full-time University of Michigan students and remain eligible for financial aid (other than work study). Tuition costs are the same as on the main campus; however, housing and living costs are higher. MIW will work with students to compensate for additional costs.

## Applications

Applications for the MIW program are accepted and reviewed in October and February. Early admission is available and recommended for students interested in internships that require security clearance (e.g., State Department, CIA, FBI, Department of Justice). Application materials are available on the website. All students who apply to the program will be interviewed. Forms are available on the MIW website (www.Isa.umich.edu/michinwash).

For further information, contact the MIW office (734) 615-6491, or send an email to MIWDC@umich.edu.

## Psychology

1343 East Hall
530 Church Street
(734) 764-2580 (phone)
(734) 764-3520 (fax)
www.Isa.umich.edu/psych
e-mail: psych.saa@umich.edu
Undergraduate courses in psychology give students an opportunity to learn what research has shown about:

- how behavior is motivated;
- how we perceive, learn, and think;
- how individuals differ from one another;
- how the personality develops from infancy to maturity and is expressed by behavior; and
- how interpersonal factors affect human relationships in the home, on the job, and in the community.

The curriculum in psychology is intended to enhance one's understanding of behavioral science and of oneself and others in terms of concepts developed by study. The undergraduate major is not intended to prepare students for any specific vocational objective; to become a professional psychologist requires from two to four years (or more) of graduate study.

The overall goal of the Psychology major is to provide students with a broad background in the various levels of analysis and methodological approaches used in the study of behavior, particularly human behavior, and to prepare students for graduate study in a number of fields. Students can gain research training, experience in a wide variety of community settings, and tailor course selections to meet their long-term post-graduate goals. A Psychology degree, in conjunction with courses chosen from other disciplines, can prepare students for careers interacting with people of all ages and backgrounds in a wide range of fields.

The overall goal of Biopsychology, Cognition, and Neuroscience major is to provide a course of study that integrates the natural science components of the study of behavior and prepares students for graduate study in a number of related fields. The program integrates neuroscience, cognitive science, and evolutionary approaches to the study of behavior. This major is particularly appropriate for students interested in graduate study of human cognition, biopsychology, behavioral neuroscience, comparative animal behavior, and evolutionary psychology. A variety of research course options are available to provide the research training needed for postgraduate study. A variety of other career opportunities are also available when additional appropriate courses are chosen from other departments.

Advising. Students choosing psychology as a field of the major develop an approved plan for the major with a department advisor. Students then assume responsibility for completing their program of study or for making revisions which will not jeopardize their graduation. Students are, however, encouraged to consult a department advisor at any time. A department advisor must approve the original plan for the major and any exceptions to the stated requirements for the major. Students should also consult a department advisor when planning the final term's elections to ensure that all requirements for the major have been met and to secure an advisor's approval on a Major Release form.

Appointments for students are scheduled at 1343 East Hall or online through the departmental website.

Peer Advising. Advising by Undergraduate Psychology Academic Peer Advising Program students is available at 1343 East Hall during fall and winter terms.

Teaching Certificate. Students interested in obtaining a secondary teaching certificate with a teaching major or minor in Psychology should consult the "Teacher Education Program" section on the LSA website and the School of Education Teacher Education office, 1228 School of Education Building, (734) 615-1528.

Curriculum Guides. Curriculum Guides are available for both Psychology and Biopsychology, Cognition, and Neuroscience majors. Guides are
groupings of courses (both within the Department of Psychology and throughout other programs at the University of Michigan) that focus on a more specific area related to psychology. Students are encouraged to refer to these guides when making academic and career goals.

The following guides are currently available:

- Behavioral and Cognitive Neuroscience
- Business, Systems, and Organizations
- Culture, Context, and Communities
- Development, Psychopathology, and Mental Health
- Evolution, Biology, and Behavior
- Gender, Psychology, and Society
- Health, Development, and Aging
- Intergroup Relations
- Language, Thought, and Culture
- Law, Criminal Justice, and Forensics


## Biopsychology, Cognition, and Neuroscience (BCN)

## May be elected as a departmental major

Exclusions: Students who elect a major in Biopsychology, Cognition, and Neuroscience may not elect the Neuroscience or Psychology majors.

Of the 40 overall credits (pre-requisites and courses for the major), 24 must be completed in-residence directly through University of Michigan's Department of Psychology." Of these 24 credits, 12 credits must be upperdivision ( 300 or above).

Prerequisites to the Major. Before declaring a major in Biopsychology, Cognition, and Neuroscience, students must complete:

- an introductory course (PSYCH 111, 112, or 114) with a minimum letter grade of "C";
- STATS 250

Requirements for the Major. A minimum of 32 credits is required for the major.

100-level courses may not be used to meet the requirements for the major or the credit requirement.

Although some courses that are graded credit/no credit may be used to meet the lab requirement, 24 credits must be letter graded.

1. Gateway requirement. At least one course from each of the groups below:

| Group | Course |
| :--- | :--- |
| Behavioral Neuroscience <br> Gateway | PSYCH 231 |
| Cognitive Gateway | PSYCH 240 |
| Breadth Gateway | PSYCH 250, 270, 280, 290, or 291 |

2. Advanced Courses. A minimum of four additional courses (at least two of which are at the 300 -level and at least one of which is at the 400level), for a minimum of 12 credits selected from the following:

- PSYCH 330 Topics in Biopsychology
- PSYCH 332 Biological Rhythms \& Behavior
- PSYCH 333 Affective Neuroscience
- PSYCH 334 Neuroscience of Learning \& Memory
- PSYCH 335 Introduction to Animal Behavior
- PSYCH 336 Drugs of Abuse, Brain, and Behavior
- PSYCH 337 Hormones \& Behavior
- PSYCH 338 / ANTHRBIO 368 Primate Social Behavior I
- PSYCH 339 Biopsychology of Cooperation
- PSYCH 340 Topics in Cognition and Cognitive Neuroscience
- PSYCH 343 Cognitive Neuroscience of Learning and Memory
- PSYCH 345 Introduction to Human Neuropsychology
- PSYCH 346 Learning \& Memory
- PSYCH 347 Perception
- PSYCH 348 Psychology of Thinking
- PSYCH 352 / LING 352 Development of Language and Thought
- PSYCH 355 Cognitive Development
- PSYCH 356 Educational Psychology
- PSYCH 358 Psychology of Adolescence
- PSYCH 359 Psychology of Aging
- PSYCH 414 / WOMENSTD 452 Sexuality and Science
- PSYCH 420 Faculty Directed Advanced Tutorial Reading for Psychology as a Natural Science
- PSYCH 430 Advanced Topics in Biopsychology
- PSYCH 431 Advanced Topics in Behavioral Neuroscience
- PSYCH 432 Advanced Topics in Evolutionary \& Comparative Psychology
- PSYCH 433 Advanced Topics in Neuroscience
- PSYCH 434 Neuroscience of Fear and Anxiety
- PSYCH 435 Neurobiology of Attention and Attentional Disorders
- PSYCH 438 Primate Social Behavior II
- PSYCH 440 Advanced Topics in Cognitive Neuroscience
- PSYCH 441 Neuroscience and Society
- PSYCH 442 Cognitive Neuroscience of Expertise
- PSYCH 443 Creativity
- PSYCH 444 Cognitive Aging
- PSYCH 445 / LING 447 Psychology of Language
- PSYCH 447 Current Topics in Cognition or Cognitive Neuroscience
- PSYCH 448 Mathematical Psychology
- PSYCH 449 Decision Processes

3. Lab requirement. Students must elect two different courses for a minimum of five credits total. Each course must be taken for a minimum of two credits each and be completed in a single academic term. At least one course must be methods-based. Only one nondepartmental course may be elected to satisfy the lab requirement.

Note: Credit/No-credit courses may be used toward the Lab requirement, but will not count toward the total number of psychology credits required for the major.

## Methods-Based Lab Courses:

- PSYCH 302, 303, 331, 341, 343, 422, 423, 424/426, 428
- BIOLOGY 226

Research Lab Courses ( 2 credits minimum to satisfy requirement):

- PSYCH 226, 322, 326, 422, 423

Students wishing to pursue the Biopsychology, Cognition, and Neuroscience (BCN) Honors Research program should acquire research and statistical skills early in their major before applying.
4. Cognate course requirement.

One course selected from the following list:

- ANTHRBIO 467, 478
- BIOLCHEM 415
- BIOLOGY 205, 208, 222, 225, 305
- CHEM 351
- COGSCI 200
- EEB 381, 390, 440, 442, 450, 451, 492
- EECS 281, 492
- ENVIRON 381, 422, 451
- LING 315, 516 (or 514 prior to Fall 2015 )
- MCDB 307 (prior to Fall 2011), 310 (or 311 or 412), 418, 422
- NRE 422, 451
- PHIL 340, 345, 450, 482
- PSYCH 394 / WOMENSTD 394
- STATS 401, 406
- WOMENSTD 394 / PSYCH 394

5. Additional credits. If additional credits are needed for the minimum required for the major, students may select additional courses from:

- the advanced courses in biopsychology and cognitive psychology
- approved lab courses
- approved cognate courses


## Psychology (General Social Science)

May be elected as a departmental major

## Updated 3/21/2016 - effective Fall 2016

Exclusions: Students who elect a major in Psychology may not elect the major in Biopsychology, Cognition, and Neuroscience (BCN).

Student double majoring in Psychology and Neuroscience may share a maximum of 3 courses toward their two programs.

## Prerequisites to the Major.

- an introductory course (PSYCH 111, 112, or 114) with a "C" or better
- STATS 250 with a C- or better

Requirements for the Major. A minimum of 40 credits, including the prerequisites and courses within the major. At least two courses must be taken at the 300-level.

1. Breadth Requirement: One course from each of three breadth groups

Group I: PSYCH 220 or 240
Group II: PSYCH 250 or 270
Group III: PSYCH 280 or 290 or 291
2. Lab Requirement: To meet the lab requirement, students may complete either:
a. two (at least 3 credits each) courses from the list of Methodsbased Lab courses;
b. one (at least 3 credits) course from the list of Methods-based Lab courses and one (at least 3 credits) course from the list of Experiential Lab courses (i.e., Community-based or Researchbased); or
c. the Psychology Honors Research sequence (6 credits total) and one course (at least 3 credits) from the list of Methods-based Lab courses.

## Methods-Based Lab Courses:

PSYCH 303, 331/332, 341, 351, 361, 371, 381, 383, 391.
Experiential Lab Courses ( 3 credits minimum to satisfy requirement):

- Community-based Lab Courses: PSYCH 211, 304, 305, 306, 307, 308, 310, 311, 317, 319, 324, 325, 404, 405, 485;
- Research-based Lab Courses: PSYCH 226, 322, 323, 326, 327, 422, 423; 428, 429
- Honors Research Sequence: PSYCH 424 \& 426, or 425 \& 427.

Note: Credit/No-credit courses may be used toward the Lab requirement, but will not count toward the total number of psychology credits required for the major. A total of six credits of Psychology lettergraded Experiential lab (community or research-based courses) may be counted towards the Psychology major. A minimum of three credits of Research-based courses must be taken in a single academic term to satisfy the Psychology Lab requirement. Students wishing to pursue the Psychology Honors Research program should acquire research and statistical skills early in their major before applying.
3. Electives: Additional 300- and 400-level Courses for the major. The remainder of the major is filled by at least four upper-level Psych lecture or seminar courses for a minimum of 12 credits:

- at least two of the courses must be at the 300-level (PSYCH 225 or COGSCI 200 may be substituted for one of these courses)
- at least one of the courses must be at the 400 -level


## Honors Program

Psychology and Biopsychology, Cognition, and Neuroscience majors with strong academic records and an interest in research are encouraged to consider participating in the Honors Program. The program is designed to enable advanced students to gain experience in design, conduct, and analysis of research studies. Students experience an intensive collaboration with a faculty member, and complete a major effort to create new scientific knowledge. The Honors Program can serve as a capstone for their undergraduate studies, and as important preparation for graduate training or employment in a variety of fields.

## The Honors Program in Psychology and in Biopsychology, Cognition, and Neuroscience:

1. Requirements. In addition to completing all the requirements for the major, an Honors degree designation requires having and maintaining a cumulative GPA of at least 3.4, participation in two terms of independent study Honors courses, presenting in the Annual Research Forum, and the completion and acceptance of a written thesis describing an original research project conducted in collaboration with a faculty mentor.
2. Faculty Partnership. Students wishing to pursue Honors should explore their interests in research and statistics early in their undergraduate career. The student must then identify a faculty research mentor to work in partnership on an Honors project. The research mentor can be any faculty member or research scientist holding a faculty appointment in the University. Students must have one mentor from the Psychology Department. With the mentor as a collaborator, the student will prepare a project plan and timeline for completion. Application deadlines are posted on the Psychology Honors website.
3. Admission to the Honors Program. A student and their faculty research mentor must apply together for admission to the program; this includes an application and research proposal. Students are encouraged to apply the semester before their final year at the university (i.e., the end of their junior year) to begin the Fall term of their Senior year. Students will need to have completed their Statistics requirement and have completed or planned completion of their Methods-based lab requirement before applying to the program.
4. Courses. Once accepted into the Honors Program, Psychology majors will elect both PSYCH 425 and 427; Biopsychology, Cognition, and Neuroscience majors will elect both PSYCH 424 and 426. The Honors courses are graded, may be used towards the required experiential lab credits for the major(Psychology major: for a maximum of 6 experiential lab credits and BCN major: maximum of 3 credits) and PSYCH 426 or 427 may satisfy the college upper-level writing requirement. Students may be required to take a Methods-based lab in addition to these courses, and are encouraged to meet with the Honors department advisor to plan how each course will count toward their plan.
5. The Honors Thesis. The required senior Honors thesis is a written report describing the design and execution of the research project conducted in collaboration with the faculty mentor. The thesis will be due one calendar month before the anticipated graduation date. All Honors theses must be prepared in American Psychological Association (APA) format, and typically run 30-40 double-spaced pages in length. One electronic and hard copy of the thesis and a submission form must be submitted.
6. Evaluation of Thesis. The thesis will be evaluated by two-three readers: the mentor, an outside reader (a faculty member not involved in the research project), and possibly a representative of the Honors Program. Students and mentors are responsible for suggesting a second reader prior to submitting their application. The reports of all readers will address the quality of the science reported in the thesis, as well as the quality of the written presentation. The report of the mentor will also address the role the student played in the design, execution, and interpretation of the experiments reported in the thesis, and should point out the role played by others on the project. The Honors Director will then meet to review the recommendations of the readers and decide on the appropriate level of Honors. The Honors Director will attempt to maintain uniform standards, and is not constrained by the recommendations of the readers. Based on LSA guidelines, a determination of "No Honors," "Honors," "High Honors," or "Highest Honors" is made. This determination of an Honors designation must be completed prior to the actual awarding of the degree.

Students interested in the Psychology Department Honors Program should attend an informational session and review program details on the website prior to applying.

## Public Health

School of Public Health<br>1700 School of Public Health I<br>1415 Washington Heights<br>(734) 764-5425 (phone)<br>(734) 763-5455 (fax)<br>www.sph.umich.edu<br>e-mail: sph.inquiries@umich.edu

The School of Public Health offers LSA students an accelerated degree program through the departments of Environmental Health Sciences, Epidemiology, or Health Behavior and Health Education that leads to a bachelor's degree from LSA and a Master of Public Health (MPH) degree from the School of Public Health. The program is described website. Undergraduates wishing further information about course offerings and degree requirements should contact the School of Public Health.

## Public Policy

Gerald R. Ford School of Public Policy
2245 Weill Hall
735 South State Street
(734) 764-0453 (phone)
(734) 647-7486 (fax)
www.fordschool.umich.edu
e-mail: fordschoolinfo@umich.edu

The Gerald R. Ford School of Public Policy offers a Bachelor of Arts (BA) program in public policy. Students apply to the program during their sophomore year and are admitted to the Ford School for their final two years. Program size is limited to approximately 55 students per year.

Undergraduates wishing further information about course offerings and degree requirements should contact the Gerald R. Ford School of Public Policy.

## Studies in Religion

The College does not currently offer a major, although a student may emphasize Studies in Religion in the LSA Individual Major (IMP). Students interested in pursuing an Individual Major in Studies in Religion should contact the IMP advisor in 1255 Angell Hall.

The Department of History offers a minor in Religion and the Departments of Near Eastern Studies and Classical Studies offer a minor in Early Christian Studies.

# Residential College 

133 Tyler, East Quadrangle
701 East University Avenue
(734) 763-0176 (phone)
(734) 763-7712 (fax)
www.lsa.umich.edu/rc
The Residential College is a four year program within the College of Literature, Science, and the Arts devoted exclusively to undergraduate education. The RC offers courses and majors of its own. Students in the RC elect a substantial number of courses within LSA and often complete LSA majors. Honors students are eligible to join the RC.

The College opened in 1967 and presently has over 900 students. The faculty consists of over fifty full or part-time lecturers and professors, most of the latter on joint appointment with LSA departments or other schools and colleges of the University. The curriculum includes multidisciplinary approaches to the humanities, natural sciences, and social sciences. Courses are also offered in fine arts, music, and languages. RC Majors open to LSA students include: Drama, Creative Writing, Arts and Ideas in the Humanities, and Social Theory and Practice; the RC Individualized Major is open exclusively to RC students. RC faculty advisors assist students with academic planning and personal concerns.

Residential College students are required to live in RC Housing for the first two years of the undergraduate program. The building houses administrative and faculty offices, classrooms, a library, art and music studios, a theatre, a computer room, a snack shop, and other facilities supportive of the academic and community life of the Residential College.

University of Michigan students interested in Residential College programs and courses should contact the RC Academic Services Office (134 Tyler, East Quadrangle), (734) 763-0032, or visit in person. Others should contact the RC Admissions Office, 133 Tyler, East Quadrangle, (734) 763-0176.

## Graduation from the Residential College

Candidates for graduation from the Residential College must be in good academic standing and fulfill all Residential College and LSA requirements for graduation. Students admitted to the Residential College (beginning in Fall 2001) are graded by letter grade AND written evaluation in all RC courses with the exception of pre-proficiency language courses which are graded by written evaluation only.

## Residential College Requirements

1. RC live-in requirement
2. A First-Year Seminar (RCCORE 100 ).
3. Foreign language study through a comprehensive proficiency examination and an upper-level seminar in the language (or the equivalent credits in a language not taught in the Residential College).
4. An arts practicum.
5. At least four RC courses beyond completion of the First-Year Seminar and the RC language requirement, if not electing an RC major.

## LSA Requirements for all degrees

6. An approved course in Race and Ethnicity (R\&E).
7. One to two courses in Quantitative Reasoning.
8. An upper-level writing course.
9. A minimum of 120 credits.

## Graduation with a B.A. or B.S. requires

10. An LSA area distribution plan (both RC and LSA courses may be included).
11. A major chosen from among regular LSA or Residential College majors.
12. At least 60 credits outside the area of the major.

## Graduation with a B.G.S. requires:

10. At least 60 credits of upper-level coursework (300-level or above) as outlined in the LSA requirements for the BGS degree. Students must
earn an overall GPA of at least 2.0 in the courses used to meet the requirement of 60 upper-level credits.
11. Students pursuing a BGS degree are not eligible to pursue a minor.

## Graduation Procedures

Residential College students submit all completed audit forms to the Residential College, 133 Tyler House, East Quad.

## Residential College Majors

## Arts and Ideas in the Humanities

May be elected as a departmental major
Students wishing to pursue a major in Arts and Ideas in the Humanities must develop a specific plan for its completion in consultation with the program's designated advisor. Appointments may be scheduled at the RC Advising Office, 134 Tyler, East Quad, or by calling (734) 763-0032.

The Arts and Ideas Major offers students the ability to construct an interdisciplinary major in the arts and humanities. Majors can combine either two humanities disciplines or a humanities discipline with an artistic practice. Many courses focus on a specific historical moment or context, encouraging students to examine a particular culture through a broad range of different media. In these courses, students are asked to develop interpretive and analytical skills appropriate to the arts. Courses in visual studies, performance, and studio art provide training in the comparative analysis or practice of different art forms. By combining practice with the academic study of art, the Arts and Ideas curriculum encourages students to reflect on the origins of art, and to engage in its contexts, whether productive or historical.

Requirements for the Major: a minimum of five courses to be elected from (1) History and Theory and (2) Visual Studies, Performance and Studio Arts, completed by seven courses of Specialized Study. (Total: minimum of 12 courses)

1. History and Theory: There are two areas: (A) Historical Perspectives and (B) Issues of Modernity. Students take two courses in one area and one in the remaining area:

## A. Historical Perspectives

RCHUMS 309 Classical Sources of Modern Culture
RCHUMS 310 Pagans, Christians, Barbarians in Late Antiquity and the Early Middle Ages
RCHUMS 314 The Figure of Rome in Shakespeare and $16^{\text {th }}$ Century Painting
RCHUMS 315 Representations of History in the Literature and Visual Arts of Rome
RCHUMS 344 Reason and Passion in the $18^{\text {th }}$ Century
RCHUMS 354 Race and Identity in Music
RCHUMS 373 The Performing Arts in South and Southeast Asia
B. Issues of Modernity

RCHUMS 290 Arts and Ideas of the $20^{\text {th }}$ Century
RCHUMS 291 Arts and Ideas of the $19^{\text {th }}$ Century
RCHUMS 305 Cultural Confrontations in the Arts
RCHUMS 308 Art and Culture: Arts and Ideas of South and Southeast Asia
RCHUMS 318 Critical Approaches to Literature
RCHUMS 342 Representing the Holocaust in Literature, Film and the Visual Arts
RCHUMS 356 The Symphonic Century: Music and Revolution in the $19^{\text {th }}$-Century
RCHUMS 372 The Subject in the Aftermath of Revolution
2. Visual Studies, Performance, and Studio Arts: Two courses selected from one or more of the following areas.
A. Film/Video

RCHUMS 236 Art of the Film
RCHUMS 255 Film Experience
RCHUMS 312 Central European Cinema
RCHUMS 313 Russian and Ukrainian Cinema
B. Dance

RCHUMS 235
RCHUMS 260
Topics in World Dance
The Art of Dance: An Introduction to American and European Dance History
RCHUMS 444 George Balanchine and the Transformation of American Dance

## C. Studio Arts

RCARTS 268
RCARTS 269
RCARTS 285
RCARTS 286
RCARTS 28
RCARTS 28
RCARTS 289
D. Music

RCHUMS 249 Foundations of Music
RCHUMS 250 Chamber Music
RCHUMS 251 Topics in Music
RCHUMS 252 Topics in Musical Expression
RCHUMS 253 Choral Ensemble
RCHUMS 256 Studying and Playing Southeast Asian Music
RCHUMS 258 Afro Cuban Drumming and Styles
RCHUMS 259 Musical Improvisation
RCHUMS 350 Creative Musicianship
RCHUMS 351 Creative Musicianship: Theory Lab
RCHUMS 352 Found Instruments
3. Specialized Study: Seven upper-level courses (300 and above) distributed among two areas of focus. Four courses must be selected from one area and three in the remaining area. These areas and the specific courses considered appropriate for inclusion are determined by the student in consultation with the Arts and Ideas designated advisor. Possible areas of specialization include, for example: drama and anthropology; photography and history of art; literature and history; creative writing and African-American studies. However, no more than one of the two specializations may be in the practice of an art form.

Honors Plan. Qualified students may be admitted to a program of advanced study in the beginning or middle of the junior year. An Honors Thesis is required.

## Creative Writing and Literature

May be elected as a departmental major

## Not open to those pursuing the minor in Creative Writing

The Residential College's Creative Writing and Literature Major combines the sustained, disciplined practice of writing with the serious study of literature. The main goal of the program is to help students develop their creative abilities through a continuous, interrelated cycle of writing, rewriting, and literary analysis. Creative writing courses are taught as workshops and tutorials in which students work individually with faculty members. Students are required to take courses in literature in order to understand better the art of writing.

Students wishing to pursue a sustained practice in creative writing take a combination of writing courses in a selected genre and literature courses, distributed as follows:

1. A minimum of four creative writing classes, three at the upper level (300 and above), mixing seminars (RCHUMS 220, 221, 222, 242, 320, 321,322 ) and tutorials (RCHUMS 325, 326, 425, 426)
2. A minimum of five upper level ( 300 and above) literature courses at least one of which must be ancient (RCHUMS 309, CLCIV 390, ENGLISH 401) or medieval (RCHUMS 310, ENGLISH 370) literature.

## Drama

May be elected as a departmental major
The RC Drama program offers a unique course of study at U-M: the understanding of drama both as art form and literature. They learn to understand all the stages of the dramatic process - from the circumstances of a work's composition, to the history of theater methods and presentation. Students attune their sense of theater aesthetic through practice and experimentation. They immerse themselves in the dramatic process as actors and directors as well as learning about all the aspects of production: costuming, scenery, lighting and sound design.

The Drama major is operated in collaboration with the Department of Theatre and Drama. The major combines the strengths and faculty resources of the RC and Theatre and Drama.

- The RC brings strengths in a humanities approach to drama and the dramatic arts, most notably in its Text-to-Performance orientation that combines the literary, the historical, and the theatrical.
- Theatre and Drama contributes expertise in design, production, and practicum work, thereby exposing students to the best of both worlds.

Both programs offer students a variety of hands-on experiences and opportunities to study, explore, and perform.

Students have the opportunity to explore the fields of dramaturgy, directing, the teaching of dramatic literature, and practical theatre as it relates to theory; and to study dramatic texts and experience performance and production. It consists of 35 credits that move from introductory courses to those along two distinct upper-level tracks. The major culminates in a play production capstone seminar that brings all the elements of this major into focus.

The Program regards drama as an art form that is both literary and theatrical, drawing on these and many other arts for its expression, but claiming methods and purposes which are finally its own. A proper appreciation of drama requires the recognition and study of several stages in the making of a play, primarily those of the playwright and his conditions of work, the text and form of the play, the performance of the play, and the audience and society from which the play arises and to whom it is addressed. This demands a practical as well as a theoretical encounter with all the components of the dramatic experience. Accordingly, the method of study employed by the Drama Program combines active experiment and dynamic presentation with critical analysis and appropriate conditions for interpreting, enjoying, and evaluating the living work of dramatic art.

## Prerequisites to the Major: None

Requirements for the Major: Students wishing to pursue a sustained exploration of dramatic literature and its performance must complete a minimum of 35 credits of course work, distributed as follows:

1. Theater History sequence: THTREMUS 321 and 322
2. Fundamentals of acting and script analysis:
A. One of RCHUMS 281 or RCHUMS 282
B. One of THTREMUS 101 or 110 or 102
3. The Senior Capstone. RCHUMS 481.
4. Category Requirement. Five courses, with at least two in each category, for a total of at least 18 credits
A. Actor and Text. Choose at least two from:

- RCHUMS 383, 387, 389, 390, 483, 485
- THTREMUS 233, 323
- AAS 342
- ENGLISH 349
B. Design and Production. Choose at least two from:
- RCHUMS 482
- THTREMUS 227, 240, 241, 250, 251


## - ENGLISH 227

RC Players. The RC Players is a student-run theatre organization that provides students all over campus with the opportunity to showcase their talent in acting, directing, producing, and more. RC Players provide leadership opportunities and venues for creative and dramatic expression through its various student-written and published theatrical pieces in East Quad. Past productions have included Evenings of Scenes, premieres of original student-written works, student-senior theses that reflect and reenact their undergraduate experiences, various experimental texts, and the modestly (in)famous Kamikaze Theater. We are open to all students across campus, but provide the unique advantage to become active and creative within the East Quad and RC community, even without any prior experience.
www.umich.edu/~rcplayer/
Shakespeare in the Arb. A theater production of the LSA Residential College that moves through different areas of the Nichols Arboretum. The unique experience of Shakespeare in the Arb comes from the environmental staging of the plays. There is no fixed stage - instead, the audience follows the action through different locations in the Arboretum. The staging takes advantage of the vistas and valleys, the special arrangements of the natural settings. Performances held Thursday-Sunday evenings in June. This beloved annual tradition is eagerly anticipated by the community and commands sold-out performances. www.rc.Isa.umich.edu/shakespeare/

German Theatre Program. U-M RC Deutsches Theater is part of the RC Intensive German Language Program. It has staged plays in German annually since 1985. The group travels to Munich or Berlin each year to see theater.
www.Isa.umich.edu/rc/currentstudents/studentactivities/germantheatre_ci

## Social Theory and Practice

May be elected as an interdepartmental major
The major in Social Theory and Practice supports students in developing the analytical and practical skills necessary for active engagement in the world and for building careers that promote equality and responsible citizenship. Students learn theories, methods, and strategies that enable them to understand and critique social structures and processes and to become effective actors in struggles for justice.

Students wishing to pursue a problem-centered interdisciplinary program in the social sciences must develop a plan for the major in consultation with department advisors The STP major is an interdepartmental major that requires students to explicitly propose and pursue an individualized course of study that reflects broad social science perspectives. Through a curricular proposal created typically in the fall of the sophomore (or junior) year, STP students articulate a series of social issues and thematic threads which they will pursue through subsequent theoretical and experiential coursework. Consequently the STP major combines the freedom and responsibility of the Individualized Major Program within an institutional umbrella that requires the following:

## Prerequisites to the Major:

1. RCSSCI 260 "Understanding Power, Theorizing Knowledge" and RCSSCI 290, a one credit course taken in the same academic term that helps develop a prospectus for the major.
2. One other "gateway" course, either an RCSSCl 200 level course or another course chosen in consultation with the STP department advisor. The aim of the gateway course is to introduce students to issues and approaches in the social sciences as well as to the ways questions are framed from different disciplinary perspectives.

Requirements for the Major. Complete the following non-overlapping groupings:

1. Required Institutional Framework Courses:
A. Core Course: RCSSCI 301.
B. Quantitative Methods: at least one, typically STATS 250, SOC 310 or 312, or ECON 251 ( or 404 elected prior to Winter 2015).
C. Research Seminar: RCSSCI 460, in which the student completes a Senior Project or Senior Thesis.
2. Thematic Courses. A minimum of six courses (and at least 18 credits) at the upper level ( 300 and above). Students are directed to consider how to create a cohesive union of theory, practice, and other course work that reflects the unique set of social issues they are attempting to understand. The thematic coursework must be conceptualized and defended by the student, be chosen in consultation with the advisor, and be organized in the following manner:
A. Social Theory: At least 3 additional social theory credits
B. Community Engagement: At least 3 approved "practicum" credits. Acceptable practicum courses require some form of community engagement beyond the classroom, in addition to regular critical reflection on that engagement. Examples include Project Outreach courses, Practicum in Sociology courses, the RC Spanish Language Internship Program, The RC Telling It Program, the RC Semester in Detroit Program, the Prison Creative Arts Project, some sections of RCSSCI 360, RCSSCI 461, and RCIDIV 302.
C. Additional electives

RCSSCI 460 does not count toward this requirement.

## RC Individual Major Program

May be elected as a special major by students enrolled in the Residential College

The Residential College offers the opportunity to formulate an individualized major to RC students unable to find an existing degree program within the Residential College, or in the College of Literature, Science and the Arts, that meets their specific academic needs and interests. Students wishing to pursue this option must have a good idea of what they want to achieve, consult with RC faculty and (where appropriate) other U-M faculty, and develop a carefully thought out academic plan of study.

Students interested in this option should start by discussing the matter with the head of the RC Individualized Major Program (IMP), whose name may be obtained at the RC Academic Services Office in 134 Tyler. With the assistance of the IMP coordinator, the student will need to identify one or two faculty members - at least one of whom is on the RC faculty - willing to serve as her/his department advisor(s). The department advisor(s) will help the student formulate an appropriate academic plan of study, and that plan must be approved by the advisor(s) and by the IMP coordinator before the student can formally declare the individualized major. After the major is declared, the student must continue to consult with her/his advisor(s) at least once a term before registering for courses in the following term; and completion of the major must be certified by an advisor who is a member of the RC faculty.

Note: Students who wish to declare an individualized major are strongly advised to do so before the end of their sophomore year. Under exceptional circumstances an individualized major may be approved as late as during the junior year, but in no cases during the senior year.

## Minors in the Residential College

RC minors are open to all LSA students.

## Crime and Justice Minor

A minor in Crime and Justice is not open to students pursuing a major in the Department of Sociology nor to students majoring in Social Theory and Practice in the RC. Students electing the Crime and Justice minor may not declare a minor in Law, Justice, and Social Change or a minor in History of Law and Policy.

The past thirty years have seen a dramatic increase in prison populations - fueled by the centrality of crime and fear of crime to American politics. This minor melds concepts from the history of crime and criminal law, theories of crime and punishment, and societal circumstances that propel unequal demographics of criminality.

Students wishing to pursue a minor in Crime and Justice must develop a specific plan for its completion in consultation with the program's
designated advisor. Appointments may be scheduled at the RC Academic Services Office, 134 Tyler, East Quad, or by calling (734) 763-0032.

Prerequisites to the Minor: None for the Minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Requirements for the Minor: A minimum of five courses (at least 15 credits), to be elected from categories as stated:

Core Course: SOC 368. Criminology
2. Electives. One course from each of the following three areas (at least two of which must be at the 300 -level and above). No more than three courses may be selected from any single department or program:
A. Contexts and Social Perspectives on the Problems of Crime and Punishment

- AAS 262 / HISTORY 272: The Modern Civil Rights Movement
- AAS 303 / SOC 303: Race and Ethnic Relations
- AAS 322 / ENVIRON 335: Introduction to Environmental Politics: Race, Class and Gender
- AAS 324: Dealing with the Past : Doing Justice in Africa: South Africa, Rwanda, Sierra Leone
- AAS 330 / RCSSCI 330: Urban and Community Studies, I
- AAS 334 / AMCULT 336: Popular Culture in Contemporary Black America
- AAS 420 / ANTHRCUL 347: Race and Ethnicity
- AAS 426 Urban Redevelopment and Social Justice
- AAS 434 / SOC 434: Social Organization of Black Communities
- AAS 454 / ANTHRCUL 453 African-American Culture
- AMCULT 304 / SOC 304: American Immigration
- AMCULT 336 / AAS 334: Popular Culture in Contemporary Black America
- AMCULT 337: A Survey of American Blues Music
- AMCULT 369 / HISTORY 369: U.S. Mass Culture from Minstrelsy to Hip Hop
- AMCULT 374 / HISTORY 374: Politics and Culture of the "Sixties"
- AMCULT 399: Race in America
- AMCULT 421 / SOC 423: Stratification
- ANTHRCUL 347 / AAS 420: Race and Ethnicity
- ANTHRCUL 453 / AAS 454 African-American Culture
- ARCH 357 / UP 357 Architecture, Sustainability, and the City: Ideas, Force, and People Shaping the Built Environment
- CEE 307 / ENVIRON 407: Sustainable Cities
- COMM 318 / PSYCH 318: Media and Violence
- ENVIRON 222: Introduction to Environmental Justice
- ENVIRON 335 / AAS 322: Introduction to Environmental Politics: Race, Class and Gender
- ENVIRON 407 / CEE 307: Sustainable Cities
- ENVIRON 408: Land Use Policy, Law, and the Environment
- HISTORY 272 / AAS 262: The Modern Civil Rights Movement
- HISTORY 369 / AMCULT 369: U.S. Mass Culture from Minstrelsy to Hip Hop
- HISTORY 374 / AMCULT 374: Politics and Culture of the "Sixties"
- HISTORY 375 / WOMENSTD 375: History of Witchcraft: The 1692 Salem Trials in Historical and Cross-Cultural Perspective
- PHIL 224: Global Justice
- PHIL 355: Contemporary Moral Problems
- POLSCI 307: Topics in American Political Thought
- POLSCI 319 Politics of Civil Liberties and Civil Rights
- PSYCH 318 / COMM 318: Media and Violence
- RCSSCI 330 / AAS 330: Urban and Community Studies, I
- SOC 303 / AAS 303: Race and Ethnic Relations
- SOC 304 / AMCULT 304: American Immigration
- SOC 423 / AMCULT 421: Stratification
- SOC 434 / AAS 434: Social Organization of Black Communities
- SOC 435: Urban Inequality and Conflict
- UP 357 / ARCH 357 Architecture, Sustainability, and the City: Ideas, Force, and People Shaping the Built Environment
- WOMENSTD 375 / HISTORY 375: History of Witchcraft: The 1692 Salem Trials in Historical and Cross-Cultural Perspective
B. Disciplinary Studies of the Problems of Crime and Punishment
- AAS 248: Crime, Race, and the Law
- AAS 450 / 451: Law, Race and the Historical Process I, II
- ANTHRCUL 333: Non-Western Legal Systems
- ANTHRCUL 428 / WOMENSTD 428 / RCSSCI 428: Sex Panics in the U.S. and UK since 1890
- COMM 425: Internet, Society, and the Law
- HISTORY 256 / JUDAIC 265: Introduction to Jewish Law: Sources, Legal History, and Legal Theory
- HISTORY 257 / JUDAIC 257: Law in the Pre-modern World
- HISTORY 345 / RCSSCI 357: History and Theory of Punishment
- HISTORY 477: Law, History, and the Dynamics of Social Change
- HISTORY 496: History Colloquium (appropriate topics may count, with permission)
- HISTORY 497: History Colloquium (section titled "War on Crime / War on Drugs"; other appropriate topics may count, with permission)
- JUDAIC 257 / HISTORY 257: Law in the Pre-modern World
- JUDAIC 265 / HISTORY 256: Introduction to Jewish Law: Sources, Legal History, and Legal Theory
- PHIL 359: Law and Philosophy
- POLSCI 364: Public International Law
- PSYCH 488 / SOC 465 / WOMENSTD 465: Sociological Analysis of Deviance
- RCSSCI 357 / HISTORY 345: History and Theory of Punishment
- RCSSCI 428 / ANTHRCUL 428 / WOMENSTD 428: Sex Panics in the U.S. and UK since 1890
- SOC 270 / WOMENSTD 270: Gender and the Law
- SOC 454: Law and Society
- SOC 465 / PSYCH 488 / WOMENSTD 465: Sociological Analysis of Deviance
- WOMENSTD 270 / SOC 270: Gender and the Law
- WOMENSTD 428 / ANTHRCUL 428 / RCSSCI 428: Sex Panics in the U.S. and UK since 1890
- WOMENSTD 465 / PSYCH 488 / SOC 465: Sociological Analysis of Deviance
C. Direct Encounters with the Problems of Crime and Punishment
- ARTDES 312: Art Workshops in Prison
- PSYCH 211: Project Outreach (appropriate sections)
- RCCORE 301: Community-Based Internship - Semester in Detroit (appropriate placements)
and RCCORE 302: Community-Based Internship Reflection Seminar
- RCCORE 334: Special Topics (section titled "The Atonement Project")
- RCHUMS 334: Special Topics in the Humanities (section titled "Theater and Incarceration")
- SOC 225 (or 389): Practicum in Sociology (appropriate sections of Project Community)
- THTREMUS 399: Topics in Drama (section titled "The Atonement Project")


## Peace and Social Justice (PSJ) Minor

A minor in Peace and Social Justice is not open to students majoring in Social Theory \& Practice in the Residential College

Students wishing to pursue a minor in Peace and Social Justice must develop a specific plan for its completion in consultation with one of the program's designated advisors (currently, Helen Fox or Frank Thompson).
The goal of the Peace and Social Justice (PSJ) minor is to integrate the study of social inequity with the peaceful resolution of conflict. In a world threatened by ethnic and religious strife, a widening gap between rich and poor, and violent confrontations over dwindling resources, the need to solve conflicts fairly and nonviolently has never been more pressing. The PSJ minor takes an interdisciplinary approach to these problems, combining insights from political science, history, psychology, human physiology, environmental science, anthropology, and cultural studies, among others. Students may explore the roots of violence in human
behavior, including the violence of racism and economic inequality, the origins and perpetuation of war and terrorism, approaches to nonviolent conflict resolution, and various paths to social and economic justice.

Peace and social justice are natural companions. Peace cannot last without the just resolution of conflict, and justice pursued through violent means all too often results in the same pattern that caused the original injustice: lack of respect and understanding between peoples, social and economic inequalities, and control of restive populations through violence or the threat of violence. Thus, students who pursue social justice should also study insights from peace studies, while those who are attracted to nonviolence should explore some of the political, social, and economic roots of conflict. The core courses and electives in the PSJ minor provide this breadth while allowing students to focus on either or both of these areas. The three core course alternatives, Nonviolence in Action (RCSSCI 354), Nonviolence: A Global Perspective (INTLSTD 401) and Globalization (RCSSCI 226), provide overviews of the fields of peace studies and social justice, respectively.

Area A Electives address the psychology, sociology, and biology of interpersonal and organized violence, exploring questions that underlie the abuse of social and interpersonal power: Is physical violence innate to humans (or human males)? How is violence defined differently by perpetrators and victims? In what ways do religious, political, and cultural institutions glorify, perpetuate, and/or alleviate violence? Area B Electives give students background and historical facts about specific wars, intractable conflicts, and attempts at global or state control of the social order. These detailed examples from different historical periods and cultural contexts help students understand and apply the more general theories of power. Area C and Area D Electives give students an understanding of how these conflicts, inequalities, and injustices have been dealt with in different cultures and contexts, and in some cases, provide opportunities for experiential learning and activism. Area C comprises courses that address nonviolent responses to conflict: social justice movements, dialogues across differences, interpersonal conflict resolution, and legal means of addressing injustice. Courses in Area D center on the reasons for specific social and economic disparities, analyses of social and political movements that address injustice, and the ways that communities can be organized to pursue nonviolent social change.
Prerequisites to the Minor: There are no prerequisites for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Requirements for the Minor: Students are required to complete at least 18 credits of course work. Twelve or more credits must be at the 300 level or above. These courses must include:

1. Core Course. Choose one of the following:

- RCSSCI 354. Nonviolence in Action
- INTLSTD 401. International Studies Advanced Seminar, section titled "Nonviolence: A Global Perspective"
- AAS 458. Issues in Black World Studies, section titled "Nonviolence: A Global Perspective"
- RCSSCI 226. Globalization

2. Electives
a. One course from Area A or Area B
b. At least two courses from Area C
or
two courses from Area D
or
one course from Area C AND one from Area D
Area A: Understanding Violence - Courses that address the psychology, sociology, and biology of interpersonal and organized violence.

- AAS 390/WOMENSTD 390. Homophobia in the Black World: The U.S., Africa and the Caribbean
- AMCULT 235/WOMENSTD 235. From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
- AMCULT 498. Humanities Approaches to American Culture, section titled "Why Do They Hate Us? Perspectives on 9/11"
- ANTHRCUL 326/WOMENSTD 326. Politics of Health and Social Suffering
- ASIAN 305/RELIGION 305. Religion and Violence in the Secular World
- COMM 481/PSYCH 481. Media and Violence
- COMPLIT 490. Comparative Cultural Studies, section titled "The Imagination of Disaster: From The War of the Worlds to 9/11"
- HISTORY 345/RCSSCI 357. History and Theory of Punishment
- INTLSTD 401. International Studies Advanced Seminar, sections titled "The Violence of Believers: Religious Terrorism in the Modern World", " Why do they hate us: Perspectives on 9/11"
- ORGSTUDY 495. Special Topics in Organizational Studies, section titled "The Organization of Violence" (limited enrollment)
- POLSCI 330. Psychological Perspectives on Politics
- PSYCH 393. Political Psychology
- PSYCH 401. Special Problems in Psychology as a Social Science, section titled "Psychological Aspects of War and Peace"
- PSYCH 481/COMM 481. Media and Violence
- RCHUMS 312/SLAVIC 312. Central European Cinema
- RCSSCI 280/SOC 280. Moral Choice in Context: Social-Psychological and Historical Perspectives
- RCSSCI 357/HISTORY 345. History and Theory of Punishment
- RELIGION 305/ASIAN 305. Religion and Violence in the Secular World
- SLAVIC 225. Arts and Cultures of Central Europe
- SLAVIC 312/RCHUMS 312. Central European Cinema
- SOC 280/RCSSCI 280. Moral Choice in Context: Social-Psychological and Historical Perspectives
- SOC 368. Criminology
- WOMENSTD 235/AMCULT 235. From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
- WOMENSTD 326/ANTHRCUL 326. Politics of Health and Social Suffering
- WOMENSTD 390/AAS 390. Homophobia in the Black World: The U.S., Africa and the Caribbean

Area B: Conflict And Control - Courses that explain $20^{\text {th }}$ - and $21^{\text {st }}$-century wars, intractable conflicts, globalization, and attempts at world order.

- AAPTIS 361. Jihad in History
- AAPTIS 491. Topics in AAPTIS, section titled "Islam and the West" (some background in Middle East, South Asian, and/or Islam intro courses required)
- AAS 322/ENVIRON 335. Introduction to Environment Politics: Race, Class, and Gender
- AAS 328/WOMENSTD 328. Women, Agency and Sexual Safety
- AAS 358. Topics in Black World Studies, sections titled "Atlantic Slave Trade: Histories and Legacies", "Examining Revolution, Its Aftermath, and Theories of Social Change"
- AAS 408. African Economies: Social and Political Settings, section titled "African Development from the Pre-Colonial Era to Structural Adjustment and Beyond"
- AAS 413. Theories of Black Nationalism
- AAS 432. Violent Environments: Oil, Development, and the Discourse of Power
- AAS 458. Issues in Black World Studies, section titled "The Politics and Culture of Fair Trade"
- AMCULT 301. Topics in American Culture, section titled "The Global Cold War: Dreamworlds and Catastrophes"
- AMCULT 356/HISTORY 356. World War Two in the Pacific
- AMCULT 368/AAPTIS 368/WOMENSTD 368. Women and War in the Middle East
- ANTHRCUL 309. Anthropology of Europe, section titled "Radicalism, Post-Socialism, Refugees and Rights"
- ANTHRCUL 346/HISTORY 347. Latin America: The Colonial Period
- ASIAN 280. Topics in Asian Studies, section titled "Sacred Collectives: Nation and Religion in South Asia"
- ASIAN 354/HISTORY 354. Rebellion and Revolution in China Through Two Centuries


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- COMPLIT 430. Comparative Studies in Fiction, section titled "The ArabIsraeli Conflict in Middle Eastern Literature"
- COMPLIT 490. Comparative Cultural Studies, section titled "Islam and the West: Critical Perspectives on European Literature"
- ENGLISH 317. Literature and Culture, section titled "Writing Islam"
- ENVIRON 335/AAS 322. Introduction to Environment Politics: Race, Class, and Gender
- ENVIRON 490/HISTORY 440. War and the Environment: A Lethal Reciprocity
- FRENCH 272. French and Francophone Film, Media and Culture, section titled "The Algerian War in Film and Literature"
- HISTORY 224/PUBPOL 224. Global Nuclear Proliferation
- HISTORY 241. America and Middle Eastern Wars
- HISTORY 266. Twentieth-Century American Wars as Social and Personal Experience
- HISTORY 303. Topics in History, section titled "The Atlantic Slave Trade: Histories and Legacies"
- HISTORY 347/ANTHRCUL 346. Latin America: The Colonial Period
- HISTORY 354/ASIAN 354. Rebellion and Revolution in China Through Two Centuries
- HISTORY 356/AMCULT 356. World War Two in the Pacific
- HISTORY 440/ENVIRON 490. War and the Environment: A Lethal Reciprocity
- INTLSTD 401. International Studies Advanced Seminar, sections titled "Islam, Media and Globalization", "Politics of Energy in the Developing World"
- MENAS 491. Proseminar on the Arab World, section titled "Modern Islamic Movements in Comparative Perspective" (some background in Middle East, South Asian, and/or Islam intro courses required)
- MENAS 591. Interdisciplinary Middle East Topics Seminar, section titled "Arab-Israel Conflict"
- NAVSCI 310/UC 310. Evolution of Warfare
- POLSCI 353. The Arab Israeli Conflict
- PUBPOL 224/HISTORY 224. Global Nuclear Proliferation
- RCLANG 324. Readings in Spanish, section titled "Place, Identity and Rights in the Americas"
- RCSSCI 360. Social Science Junior Seminar, section titled "Struggles for Democracy in Mexico: Seminar and Field Study" [with RCCORE 409. Study Off-Campus]
- REEES 405. Topics in REEES, section titled "Nowhere People: Exiles from the State of Ideology" (some background in Middle East, South Asian, and/or Islam intro courses required)
- SOC 495. Topics in Sociology, section titled "Culture and Power"
- UC 310/NAVSCI 310. Evolution of Warfare
- WOMENSTD 328/AAS 328. Women, Agency and Sexual Safety
- WOMENSTD 368/AMCULT 368/AAPTIS 368. Women and War in the Middle East

Area C: Conflict Resolution - Courses that address nonviolent responses to conflict: social justice movements, race relations, interpersonal conflict resolution, and legal paths to a just society.

- AAS 303/SOC 303. Race and Ethnic Relations
- AAS 324. Dealing With the Past and Doing Justice in Africa: South African, Rwanda, Sierra Leone.
- AAS 451. Law, Race and the Historical Process, II
- ANTHRCUL 349. Indigenous Political Movements
- ANTHRCUL 445. Cultural Anthropology Mini-Course, section titled "Examining Apartheid and Its Aftermath in South Africa"
- ASIAN 259/HISTORY 255. The History of Modern South Asia
- ENVIRON 306. Global Water
- HISTORY 255/ASIAN 259. The History of Modern South Asia
- INTLSTD 401. International Studies Advanced Seminar, section titled "The International Law and Politics of Human Rights"
- POLSCI 364. Public International Law
- PSYCH 310/SOC 320/UC 320. Processes of Intergroup Dialogues Facilitation and PSYCH 311/SOC 321/UC 311. Practicum in Facilitating Intergroup Dialogues (a two semester commitment)
- PSYCH 312/UC 375/SOC 375. Intergroup Conflict and Coexistence: Religion, Ethnicity, and Culture
- SOC 203. Sociology of Multiculturalism
- SOC 303/AAS 303. Race and Ethnic Relations
- SOC 320/UC 320/PSYCH 310. Processes of Intergroup Dialogues Facilitation and SOC 321/UC 321/PSYCH 311. Practicum in Facilitating Intergroup Dialogues (a two semester commitment)
- SOC 375/UC 375/PSYCH 312. Intergroup Conflict and Coexistence: Religion, Ethnicity, and Culture
- UC 320/PSYCH 310/SOC 320. Processes of Intergroup Dialogues Facilitation and UC 321/PSYCH 311/SOC 321. Practicum in Facilitating Intergroup Dialogues (a two semester commitment)
- UC 375/PSYCH 312/SOC 375. Intergroup Conflict and Coexistence: Religion, Ethnicity, and Culture

Area D: Social, Economic, and Environmental Justice - Courses that center on the reasons for social and economic disparities, social and political change, community empowerment, and human rights

- AAPTIS 331. Introduction to Arab Culture: Race, Ethnicity, and Gender Issues
- AAS 304/WOMENSTD 304. Gender and Immigration: Identity, Race, and Place
- AAS 323/HISTORY 388/WOMENSTD 323. Black Feminist Thought and Practice
- AAS 328/WOMENSTD 328. Women, Agency and Sexual Safety
- AAS 330/RCSSCI 330. Urban and Community Studies, I
- AAS 337/WOMENSTD 337/HISTORY 337. Black Women in the United States, Part II
- AAS 381/ENGLISH 380/WOMENSTD 381. Intersections: Fictions and Feminisms of the African Diaspora, section titled "The F Word: Exploring Feminism in Black Women's Literature"
- AAS 390/WOMENSTD 390. Homophobia in the Black World
- AAS 409/ANTHRCUL 408. Maternal/Child Health and Environmental Pollution in Africa
- AAS 418/POLSCI 324. Black Americans and the Political System
- AAS 426. Urban Redevelopment and Social Justice, section titled "Cities in Contemporary Africa"
- AAS 443/WOMENSTD 443. Pedagogy of Empowerment: Activism in Race, Gender, and Health
- AAS 458. Issues in Black World Studies, sections titled "Health and African Development", "The Algebra Project: Education, Citizenship, and Community Organizing for Social Justice in the 21st Century"
- AAS 490. Special Topics in Black World Studies, section titled "Back-to-the-City ? Back to What? Envisioning a More Just and Inclusive City Ideal"
- AMCULT 293/WOMENSTD 293. $20^{\text {th }}$-Century Writing by Women of Color
- AMCULT 311. Topics in Ethnic Studies, section titled "Race and Mixed Race"
- AMCULT 319/PSYCH 319. Empowering Families and Communities
- AMCULT 353/HISTORY 353. Asians in American Film and Television
- ANTHRCUL 370/LING 370. Language and Discrimination: Language as a Social Statement
- ANTHRCUL 408/AAS 409. Maternal/Child Health and Environmental Pollution in Africa
- COMM 478. Special Topics in Media and Culture, section titled "Race, Representation and the Media"
- ENGLISH 303. Language and Rhetorical Studies, section titled "Rhetorical Activism and U.S. Civil Rights Movement"
- ENGLISH 310. Discourse and Society
- ENGLISH 319. Literature and Social Change, section titled "Theatre and Social Change"
- ENGLISH 326. Community Writing and Public Culture
- ENGLISH 380/AAS 381/WOMENSTD 381. Intersections: Fictions and Feminisms of the African Diaspora, section titled "The F Word: Exploring Feminism in Black Women's Literature"
- ENGLISH 407. Topics in English Language and Literature, section titled "Literature of the Holocaust"
- ENGLISH 416. Topics in Disability Cultures, section titled "Autism, Culture, and Representation"
- ENVIRON 222. Introduction to Environmental Justice, section titled "Issues in Race \& Ethnicity"
- ENVIRON 391/RCIDIV 391. Sustainability and the Campus
- FRENCH 244. Issues in Race and Cultural Diversity in the Francophone World, section titled "Race, Racism, and Ethnicity in the French Speaking World"
- HISTORY 303. Topics in History, section titled "Detroit Politics and Community Organizing"
- HISTORY 337/AAS 337/WOMENSTD 337. Black Women in the United States, Part II
- HISTORY 353/AMCULT 353. Asians in American Film and Television
- HISTORY 388/AAS 323/WOMENSTD 323. Black Feminist Thought and Practice
- HISTORY 477. Law, History, and the Dynamics of Social Change, section titled "The Boundaries of Citizenship: from Dred Scott to the Era of Plessy vs. Ferguson"
- INTLSTD 401. International Studies Advanced Seminar, section titled "Translating Human Rights", "Sexual Rights are Human Rights: The History of Human Rights Law and its Application to Gender, Sexuality, and Sexual Orientation"
- LING 370/ANTHRCUL 370. Language and Discrimination: Language as a Social Statement
- POLSCI 324/AAS 418. Black Americans and the Political System
- POLSCI 489. Advanced Topics in Contemporary Political Science, section titled "Law and Social Change"
- PSYCH 319/AMCULT 319. Empowering Families and Communities
- PSYCH 488/SOC 465/WOMENSTD 465. Sociological Analysis of Deviance
- RCCORE 334. Special Topic, section titled "Community Empowerment Through the Arts"
- RCIDIV 350. Special Topics \& RCIDIV 351. Special Topics, sections titled "Pills, Profits, Politics, and the Public Good: Ethical Crossroads and the Pharmaceutical Industry"
- RCIDIV 391/ENVIRON 391. Sustainability and the Campus
- RCLANG 304. PALMA: Spanish in the Community
- RCLANG 306. Spanish Language Internship Program II
- RCLANG 324. Readings in Spanish, section titled "Media, Terrorists, and Freedom Fighters"
- RCSSCI 315. International Grassroots Development
- RCSSCI 330/AAS 330. Urban and Community Studies, I
- RCSSCI 360. Social Science Junior Seminar, sections titled:
"Theory and Practice of Community Organizing",
"Understanding Ethical Consumption",
"Struggles for Democracy in Mexico: Seminar and Field Study" [with RCCORE 409. Study Off-Campus]
- RCSSCI 365. Excellence, Equity and the Politics of Education
- RCSSCI 461. Senior Seminar, section titled "Sexual Rights are Human Rights: The History of Human Rights Law and its Application to Gender, Sexuality, and Sexual Orientation"
- RCSSCI 463/SOC 453. Mexican Labor in North America
- SOC 270/WOMENSTD 270. Gender and the Law
- SOC 295. Topics in Sociology, section titled "The Experience of Class in College and the Community"
- SOC 325. Sociology of Service Learning
- SOC 335/WOMENSTD 335. Gender and Globalization
- SOC 350. Human Rights in the United Nations
- SOC 389. Practicum in Sociology (choice of sections to be chosen in consultation with and approved by the minor advisor)
- SOC 453/RCSSCI 463. Mexican Labor in North America
- SOC 465/PSYCH 488/WOMENSTD 465. Sociological Analysis of Deviance
- SOC 495. Topics in Sociology, section titled "Human Rights and Socioeconomic Citizenship"
- SOC 503. The Sociology of Race, Ethnicity, and Immigration
- WOMENSTD 270/SOC 270. Gender and the Law
- WOMENSTD 293/AMCULT 293. $20^{\text {th }}$-Century Writing by Women of Color
- WOMENSTD 304/AAS 304. Gender and Immigration: Identity, Race, and Place
- WOMENSTD 323/AAS 323/HISTORY 388. Black Feminist Thought and Practice
- WOMENSTD 328/AAS 328. Women, Agency and Sexual Safety
- WOMENSTD 331. Advanced Gender and the Law
- WOMENSTD 335/SOC 335. Gender and Globalization
- WOMENSTD 337 /AAS 337//HISTORY 337. Black Women in the United States, Part II
- WOMENSTD 381/AAS 381/ENGLISH 380. Intersections: Fictions and Feminisms of the African Diaspora, section titled "The F Word: Exploring Feminism in Black Women's Literature"
- WOMENSTD 390/AAS 390. Homophobia in the Black World
- WOMENSTD 432. Advanced Topics in Gender and Health, section titled "Sexual Rights and Reproductive Justice"
- WOMENSTD 443/AAS 443. Pedagogy of Empowerment: Activism in Race, Gender, and Health
- WOMENSTD 465/PSYCH 488/SOC 465. Sociological Analysis of Deviance

Other courses may be substituted for the electives listed above with the advice and consent of the PSJ advisor.

## Drama: Text-to-Performance (T-t-P) Minor

Not open to students pursuing a minor or major in the Department of Theatre and Drama

Students in this minor learn about the complete process from how a theater text evolves into a fleshed-out performance. The program teaches students a variety of different theatrical styles - both in textual expression and dramatic interpretation and exposes them to a breadth of original texts. Directorial methods, acting methods, scenery are all covered to help students create different and alternative connections between a piece's original message and the voice they would give it.

Students wishing to pursue a minor in Drama: Text-to-Performance must develop a specific plan for its completion in consultation with the program's designated advisor. Appointments may be scheduled at the RC Academic Services Office, 134 Tyler, East Quad, or by calling (734) 7630032.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Requirements for the Minor: A minimum of 5 courses (at least 15-20 credits), to be elected from categories as stated:

1. Core Courses (both are required, and must be taken in sequence; ideally, the electives should be completed in the interval between taking RCHUMS 281 and 481):
A. RCHUMS 281.
B. RCHUMS 481. Play Production Seminar.
2. Electives. Each student will select three electives in consultation with the Drama: T-t-P advisor. One course must be from Group A and two courses from Group B.
A. Texts and Scenes

- RCHUMS 380. Greek Theatre.
- RCHUMS 381. Shakespeare on the Stage.
- RCHUMS 382. Molière and His Theatre.
- RCHUMS 383. Ibsen and Strindberg.
- RCHUMS 385. The Theatre of Bertolt Brecht.
- RCHUMS 389. The Modern Theatre.
- RCHUMS 390. Special Period and Place Drama.
B. The Varieties of Literature for the Theatre
- RCHUMS 386 / MEMS 421. Medieval Drama.
- AAS 341 / THTREMUS 222. Introduction to Black Theatre.
- AAS 342 / THTREMUS 233. Acting and the Black Experience.
- ASIAN 310. The Theater of China and Japan.
- CLCIV 386. Greek Drama.
- ENGLISH 267. Introduction to Shakespeare.
- ENGLISH 349 / THTREMUS 323. American Theatre and Drama.
- ENGLISH 367 / MEMS 367. Shakespeare's Principal Plays.
- ENGLISH 368 / MEMS 368. Shakespeare and his Contemporaries.
- ENGLISH 445. Shakespeare's Rivals.
- ENGLISH 446. World Drama: Congreve to Ibsen.
- ENGLISH 447. Modern Drama.
- ENGLISH 448. Contemporary Drama.
- GERMAN 320. German Expressionism in English Translation.
- GERMAN 360. Art and Politics in the Weimar Republic.
- GERMAN 381. Eighteenth to Nineteenth-Century Drama.
- GERMAN 382. Nineteenth to Twentieth-Century Drama.
- MEMS 367 / ENGLISH 367. Shakespeare's Principal Plays.
- MEMS 368 / ENGLISH 368. Shakespeare and his Contemporaries.
- MEMS 421 / RCHUMS 386. Medieval Drama.
- ITALIAN 471. Italian Theater.
- SPANISH 425. Latin-American Theater.
- SPANISH 460. The Spanish Comedia.
- SPANISH 468. Modern Spanish Theater.
- RUSSIAN 463. Chekhov.
- THTREMUS 222 / AAS 341. Introduction to Black Theatre.
- THTREMUS 233 / AAS 342. Acting and the Black Experience.
- THTREMUS 323 / ENGLISH 349. American Theatre and Drama.
- THTREMUS 324. Contemporary Black Theatre.
- THTREMUS 332. Performing Gender: Drama from Oral Sources.
- THTREMUS 402. Ideas of Theatre: Dramatic Theory and Criticism.


## Science, Technology \& Society (STS) Minor

Effective Winter 2016 9/30/2016
Not open to students with a minor in Medical Anthropology or History of Medicine

No course may be counted simultaneously toward both STS and any other minor.

Technology often precipitates the most drastic, most revolutionary changes in how societies and cultures engage one another. The Science, Technology, and Society (STS) minor helps students see beyond the veneer of policy issues to learn about the raw changes in our tools and methods. STS studies the ethical, environmental, and social implications of new tools and methods - and how these affect the developing world.

The minor helps students learn about such issues as:

- How science, technology, and medicine shape modern societies
- How social and political forces, choices, and values affect science, technology, and medicine
- How the social dynamics of science, technology, and medicine differ among world societies
- How issues of gender, race, and class appear in science, technology, and medicine

Students electing the STS minor learn multiple methods for studying and solving boundary-spanning problems, including not only those in traditional discipline-based approaches, but also in interdisciplinary and experimental ones.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Requirements for the Minor: A minimum of 15 credits (and at least 5 courses), to be chosen from the list of approved STS courses:

1. Core course: RCSSCI 275 / HISTORY 285.
2. Electives. A minimum of 3 courses in a chosen focus track (Science; Technology; Medicine). At least one course must be at the 300 level or above; Only one course at the 100 level is permitted.

Courses on science, technology, and society are offered by many different departments and programs in LSA as well as in other colleges of the university. Only courses specifically approved by the STS Program may be counted toward the minor. There are presently no provisions for exceptions to this rule. An up-to-date list of currently approved courses is available at the STS Program web site.

Students wishing to pursue a minor in Science, Technology, and Society must develop a specific plan for its completion in consultation with the program's designated advisor. Please use our LSA online advising system to schedule an appointment with the STS Undergraduate Director. Students may not declare the STS minor later than the first week of the first term of their senior year.

## Urban Studies Minor

Updated 4/23/15 - effective Fall 2015 or Winter 2016
For students with majors in other LSA programs, only one of the courses taken to complete this minor may be counted toward the major. Courses used to meet the Urban Studies minor may not be counted simultaneously toward any other minor.

The goal of the Urban Studies minor is to facilitate students' active engagement with local communities while fostering the integration of their practical experience with classroom instruction. Urban Studies is an interdisciplinary minor that allows students to explore varied and multiple dimensions of urban and community life through differing theoretical approaches. In addition to coursework in the social sciences and humanities, the minor combines theoretical and analytical concepts from African American studies, social work, urban studies, and other fields to help students understand the challenges of urban life and to expand their capacity for civic engagement and community work.

Students wishing to pursue a minor in Urban Studies must develop a specific plan for its completion in consultation with the program's designated advisor. Appointments may be scheduled at the RC Academic Services Office, 134 Tyler, East Quad, or by calling (734) 763-0032.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Requirements for the Minor: A minimum of 5 courses (at least 16 credits), to be elected from categories as stated:

1. Core Course: One of the following:

- RCSSCI 330, "Urban and Community Studies I: Historical and Theoretical Perspectives."
- UP 425, "Urban Studies"

2. Electives. Each student will select four electives (no more than one course below the 300 level) from three Categories of courses: Group A (Theory / Perspectives), Group B (Policy / Technique) and Group C (Applications / Practice). No more than two electives may be selected from any one group.
A. Theory / Perspectives - Courses that present intellectual background for the study of urban communities. Drawn from history, sociology, political science, and other disciplines, these courses introduce students to disciplinary and theoretical perspectives on community formation and urban life, and they provide opportunities for students to think through differing and at times competing analytical approaches.

AAS 332 / ENVIRON 336 / NRE 336 Environment and Inequality AAS 434 / SOC 434 Social Organization of Black Communities AAS 358, section subtitled "Asians and Blacks in Detroit"

AAS 426 Urban Redevelopment and Social Justice
AAS 443 / WOMENSTD 443 The Pedagogy of Empowerment: Activism in Race, Gender, and Health
AAS 495, section subtitled "Race and the City in American Culture"
AMCULT 301 section subtitled "Detroit Politics and Community Organizing
AMCULT 305, section subtitled "Asians and Blacks in Detroit"
AMCULT 399 Race, Racism, and Ethnicity
ANTHRCUL 438 Urban Anthropology
ANTHRCUL 446 / WOMENSTD 446 Sex and the City: Urban Geography and Sexual Locations
ARCH 443 / UP 443 History of Urban Form
ARCH 519 / UP 519 Theories of Urban Design
ENVIRON 336 / AAS 332 / NRE 336 Environment and Inequality
HISTORY 344 / RCSSCI 344 History of Detroit in the $20^{\text {th }}$ Century
HISTORY 302 Topics in History, section subtitled "Mapping Black Detroit"
HISTORY 364 History of Suburbia
HISTORY 468, section subtitled "Asians and Blacks in Detroit"
HISTORY 393 Topics in US History, section subtitled "Detroit Politics and Community Organizing
NRE 336 / AAS 332 / ENVIRON 336 Environment and Inequality
NRE 573 / UP 573 Urban and Regional Theory
POLSCI 327 The Politics of the Metropolis
RCSSCI 344 / HISTORY 344 History of Detroit in the $20^{\text {th }}$ Century
RCSSCI 345 Community Strategies Against Poverty
SOC 434 / AAS 434 Social Organization of Black Communities
SOC 435 Urban Inequality and Conflict
UP 443 / ARCH 443 History of Urban Form
UP 519 / ARCH 519 Theories of Urban Design
UP 521 The Social Life of Public Spaces
UP 568 Real Estate and Urban Development
UP 573 / NRE 573 Urban and Regional Theory
UP 655 Neighborhood Planning (requires instructor approval for undergraduates)
WOMENSTD 443 / AAS 443 The Pedagogy of Empowerment: Activism in Race, Gender, and Health
ANTHRCUL 446 / WOMENSTD 446 Sex and the City: Urban Geography and Sexual Locations

* Note: RCSSCI 330: Urban and Community Studies: Historical and Theoretical Perspectives may be included as an elective under Category A, provided a student has taken UP 425. Urban Studies to meet the core course requirement
B. Policy / Technique - Courses that provide an introduction to urban planning and policy making as it bears upon urban communities, including issues of the environment, land management, economic development, transportation, and sustainability.

GEOG 406 / UP 406 Introduction to Geographic Information Systems
GEOG 472 / UP 572 Transportation and Land Use Planning
NRE 592 / UP 502 Environmental Planning: Issues and Concepts
PUBPOL 652 / UP 652 Strategic Thinking for Affordable Housing
SW 655 / UP 655 Neighborhood Planning
UP 406 / GEOG 406 Introduction to Geographic Information Systems
UP 502 / NRE 592 Environmental Planning: Issues and Concepts
UP 507 Geographic Information Systems
UP 510 Public Economics for Urban Planning
UP 520 Urban Land Use Planning
UP 522 State and Local Land Management
UP 523 Regional Planning
UP 527 Infrastructure Planning in the US \& Developing Countries

UP 532 Sustainable Development: Resolving Economic and Environmental Conflicts
UP 537 Housing Policy and Economics
UP 538 Economic Development Planning
UP 539 Methods for Economic Development Planning
UP 572 / GEOG 472 Transportation and Land Use Planning
UP 652 / PUBPOL 652 Strategic Thinking for Affordable Housing
UP 655 / SW 655 Neighborhood Planning
UP 656 Central-City Planning and Community Development
UP 658 Urban and Regional Planning in Developing Countries UP 671 Public Policy and Transportation

* Note: UP 423 / ARCH 423 / ENVIRON 370 Introduction to Urban and Environmental Planning may be included as an elective under Category B, provided a student has taken RCSSCI 330: Urban and Community Studies: Historical and Theoretical Perspectives to meet the core course requirement.
C. Applications / Practice - Courses that give students direct exposure to community settings and foster the integration of theoretical and policy planning knowledge and practical experience. Through specific engagements with urban and community issues, students experience and examine how theoretical and academic frameworks get applied to in urban contexts. Prominent among these will be "field work" or "field study" courses - that is, courses in which students work in community settings.

AAS 358, section subtitled "Urban and Community Studies II"
AAS 634 / SOC 634 The Urban Ethnographic Tradition: Theory, Method, Standpoint (requires instructor approval for undergraduates)
AMCULT 306 / PSYCH 317 Community-Based Research
AMCULT 310, section subtitled "Race, Politics, and Activism in Detroit"
AMCULT 319 / PSYCH 319 Empowering Families and Communities
AMCULT 321 / PSYCH 325 Practicum in the Multicultural Community
HISTORY 393, section subtitled "Race, Politics, and Activism in Detroit"
POLSCI 496, section subtitled "Senior Seminar in Urban Research"
PSYCH 317 / AMCULT 306 Community-Based Research
PSYCH 319 / AMCULT 319 Empowering Families and Communities
PSYCH 325 / AMCULT 321 Practicum in the Multicultural Community
RCCORE 301: Internships with Semester in Detroit
RCCORE 309, section 006: Spanish Language Internship Placements
RCHUMS 334: sections subtitled: "Writing in Detroit;" "Empowering our Communities through Creative Expression;" and "Telling it: Community-Based Arts and Literature"
RCLANG 334: Tutoring Latinos in the Community

* RCSSCI 360, section subtitled "Urban and Community Studies II"
* RCSSCI 460, section subtitled "Social and Political Movements in Post-War Detroit"
* SOC 389 Practicum in Sociology

SOC 634 / AAS 634 The Urban Ethnographic Tradition: Theory, Method, Standpoint (requires instructor approval for undergraduates)
WOMENSTD 350 Women and the Community
WOMENSTD 351 Women and the Community II

* SOC 389, RCSSCI 360, and RCSSCI 460 are topics courses, therefore not all offerings under these numbers will be approved. Students will be allowed to count toward the minor


# Romance Languages and Literatures 

4108 Modern Languages Building
812 East Washington Street
(734) 764-5344 (phone)
(734) 764-8163 (fax)
www.lsa.umich.edu/rl
e-mail: rll.mailbox@umich.edu
The department offers courses in French, Italian, Portuguese, Spanish, Romance linguistics, and Romance languages and cultures. The primary goals of the undergraduate program are:
(1). mastery of the language;
(2). an understanding and interpretation of Romance literatures and cultures; and
(3). preparation for teaching or other careers requiring specialized linguistic knowledge and skill.

The study of a second language expands the outlook and interests of the educated citizen. By providing insight into the social and intellectual life of other peoples, language study fosters humanistic attitudes and cultivates a spirit of tolerance and understanding.

Students supplement their training in classes by use of the Language Resource Center facilities and by participation in extra-curricular language activities.

Advising. The Department offers majors in French, Italian, Romance Languages \& Literatures, and Spanish. It offers minors in French, Italian, Portuguese, and Spanish.

Appointments are scheduled online:
https://webapps.Isa.umich.edu/AdvAppts/AA_StuSelfSvc1.aspx?ctgy=RLL
or at the department office, 4108 Modern Languages Building, (734) 7645344.

## French and Francophone Studies

May be elected as a departmental major
Majoring in French allows students considerable flexibility in developing a program of study leading to competence in the French language and basic familiarity with French and Francophone cultures and literatures.

Prerequisites to the Major. FRENCH 235.
Requirements for the Major. A minimum of 30 credits in French and Francophone Studies courses numbered FRENCH 240 and above. Of these, a minimum of 18 credits must be numbered 300 or above, or equivalent. A maximum of two courses in the major may be chosen from courses taught in English without language prerequisites. A minimum of 15 of the required 30 credits must be taken either in residence or through a study abroad program affiliated with the University of Michigan. Majors must take one of the following courses in RLL at the Ann Arbor campus: FRENCH 340-379, 391-392, 402, 450-499.

To ensure that French majors and minors gain a broad range of knowledge in the French language, literature, and culture, a maximum of nine credits from FRENCH 380, 381, and 414 as well as any of their equivalents accepted as transfer and/or study abroad credit can count toward the major or minor.

French majors are encouraged to elect courses related to their field of study outside of the department and to consider the possibility of studying at the year abroad program in Aix.

Students pursuing graduate studies in French should be aware that most graduate programs expect substantial preparation in literature. For this reason, students interested in earning a graduate degree in French should give particular consideration, in choosing their courses, to FRENCH 270274, 362-369, 378, and 400-level courses in literature and culture.

Honors Plan. Qualified students may be admitted to a program of advanced study in the beginning or middle of the junior year (or at the beginning of the senior year following participation in a junior year in France program), leading to the degree of Bachelor of Arts with Honors in French. Admission to senior-level Honors work in French is by application only (forms are available on the department website at www.lsa.umich.edu/rll.

The Honors Committee expects applicants to demonstrate superior ability for their level in both oral and written French, and to present evidence of serious interest in research.
The normal requirements for the major in French and Francophone Studies must be completed along with the following:
(1). Three additional credits in French and Francophone Studies at the level of 300 or above;
(2). Composition of a thesis, in French, incorporating the results of individual research, the minimum length being 30 pages; and
(3). A discussion of the thesis and of an agreed upon set of related readings with the student's faculty advisor and one other faculty reader.

A grade point average of at least 3.5 in all courses, as well as in all French and Francophone courses is required for admission and for graduation with Honors in French. Intending students should contact the Honors advisor toward the end of their junior year, and fill out an application form. Upon admission, they enroll in FRENCH 491 and 492, Senior Honors I and II, usually in both terms of their senior year, writing their thesis under the supervision of a member of the professional staff.

Requirements for the Major in French and Francophone Studies for Students Preparing Teacher Certification. Candidates for a secondary school teaching certificate should study the general information about teaching certificate requirements, which appears under the Teacher Certification Program on the LSA website.

A minimum of 30 credits in French and Francophone Studies courses numbered FRENCH 240 and above. Of these, a minimum of 18 credits must be numbered 300 or above, or equivalent. FRENCH 333, 335, and 438 are required ( 438 must be elected as EDCURINS 456 and will not count in the 30 credits). Only one course in the major may be chosen from courses taught in English without language prerequisites. A minimum of 15 of the required 30 credits must be taken either in residence or through a study abroad program affiliated with the University of Michigan.

For information on receiving credit for study abroad in other programs, consult a department advisor.

## Italian

May be elected as a departmental major

## Effective Date: Fall 2016 Updated 1/27/2016

## May be elected as a departmental major

Major in Italian allows students considerable flexibility in developing a program of study leading to competence in the Italian language and basic familiarity with Italian literature and culture

Prerequisites to the Major. ITALIAN 230, 232, or 233; or the equivalent.
Requirements for the Major. A minimum of 30 credits in Italian courses numbered ITALIAN 235 and above. 18 credits must be conducted in the target language of Italian. Of these, at least one course must be at the 200-level beyond 233, at least one at the 300 -level, and at least two at the 400-level. Two courses must be focused on Italian literature and/or culture of periods prior to 1900 . Three credits may be accepted from courses in a cognate field, selected in consultation with and approved by the department advisor.

## 180 / COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS

ITALIAN 410 (Italian for Spanish Speakers) does not count toward the Italian requirements for the major.

Residence requirement: A minimum of 15 of the required 30 credits must be taken either in residence or through a study abroad program affiliated with the University of Michigan. At least one course at either the 300- or 400-level, taught in Italian, must be taken in RLL at the Ann Arbor campus.

Italian majors are encouraged to consider study abroad programs with an emphasis on Italian immersion. For information on receiving credit for study abroad in other programs, consult the department advisor.

## Honors Plan

Qualified students may be admitted to a program of advanced study in the beginning or middle of the junior year (or at the beginning of the senior year following study abroad), leading to the degree of Bachelor of Arts with Honors in Italian. Admission to senior-level Honors work in Italian is by application only (forms are available on the department website at www.lsa.umich.edu/rll). The Honors Committee expects applicants to demonstrate superior ability for their level in both oral and written Italian, and to present evidence of serious interest in research.

A grade point average of at least 3.5 in all courses (including Italian courses) is required for admission and for graduation with Honors in Italian. Intending students should contact the Honors advisor toward the end of their junior year, and fill out an application form. Upon admission, they enroll in ROMLANG 498 (Senior Seminar in Romance Languages \& Literatures) in the fall term of their senior year and in ITALIAN 491 (Senior Honors Course) in the winter (each course counts for 3 credits toward the completion of the major). Over the course of the two semesters they will write their thesis under the supervision of a member of the professional staff. The normal requirements for the major in Italian must be completed along with the following:

1. ITALIAN 491 (this course is in addition to the 30 credits for the major.)
2. ROMLANG 498 (this course may be included in the 30 credits for the major.)
3. Composition of a thesis, in Italian, incorporating the results of individual research, the minimum length being 30 pages; and
4. A presentation and discussion of the thesis and of an agreed upon set of related readings with the student's faculty advisor and one other faculty reader.

## Portuguese

Portuguese is one of the 10 most widely spoken languages in the world uniting approximately 250 million speakers throughout several continents including Brazil, Portugal, Angola, Mozambique, Cape Verde, GuineaBissau, São Tomé \& Príncipe, and East Timor. It is also the language of immigrant communities in North America, Central Europe, South Africa, and in the Asia/Pacific region.

Students can select language courses from the beginning level, PORTUG 101-102, through 231-232 or 415 . The entire Portuguese program has been revamped, with the creation of 8 new courses emphasizing the whole of the Portuguese-speaking world: Brazil, Portugal, and Lusophone Africa. A minor is offered.

## Spanish

Updated 4/23/2015, Winter 2016

## May be elected as a departmental major

A major in Spanish allows students considerable flexibility in developing a program of study leading to competence in the language and a broad knowledge of Hispanic cultures and literatures. Course offerings are grouped into four clusters from which students will select a program of study based on their interests and career plans:

- Hispanic Communities: For students interested in acquiring a broad knowledge of the diverse societies and cultures in the Spanishspeaking world. Included in this cluster are courses on culture, literature, and cinema throughout Spain and Latin America, as well as community service and internship courses.
- Communication and Thought: For students who wish to focus on language, linguistics, translation, communication in literature and other media, as well as the relationships between language, religion, society, and politics.
- Power, Politics, and Cultural Production: For students interested in political and economic issues in the Spanish-speaking world, as expressed in film, literature, and music, historically and in the present-day.
- Race and Gender: For students who wish to explore issues of gender and race among the diverse cultures of the Spanish-speaking world.
In selecting courses for a given area of specialization, students should refer to the RLL website and discuss their interests with a department advisor. No specific courses are required, nor is it necessary to declare an area of specialization.

Prerequisites to the Major. SPANISH 277 (or 275 \& 276). The prerequisite will be waived for Residential College students who complete one RCLANG 324 readings course in Spanish. Students who complete a second and/or a third RCLANG 324 course will receive major credit for a Spanish elective at the 300 level. For eligible students, SPANISH 278, Spanish for Heritage Language Learners, can be substituted for SPANISH 277.

Requirements for the Major. A minimum of 10 courses (30 approved credits), of at least 3 credits each, beyond the prerequisite.

SPANISH 308 does not count toward the major.

## Required Courses in SPANISH:

- 4-5 courses of at least 3 credits each from SPANISH courses numbered 279 to 399
- 5-6 courses of at least 3 credits each from SPANISH courses at the 400-level


## Electives/Cognates.

- Approved courses in other fields, if taught in Spanish, may also count as electives in Spanish.
- Students may count only one of ITALIAN 410 or PORT 415 toward the Spanish major
- One approved optional cognate course (3 credits), taught in English in the area of Hispanic studies, is allowed.
- No more than one Independent Study and one internship course (6 credits) can be included in the major/minor.
- Students are encouraged to develop a balanced program of study that addresses the cultural production of various countries and historical periods.

Minimum Credit Requirement: Each course to be counted toward the major must be at least 3 credits.

Residence Requirement: A minimum of 5 courses of at least 3 credits each for the major must be taken either in residence or through a studyabroad program affiliated with the University of Michigan.

## Teaching Certificate

Students interested in obtaining a secondary teaching certificate should study the general requirements for professional preparation, which appear under the "Teacher Certification Program" on this website. Specific subject- area requirements for a teaching certificate can be found on the School of Education website at:
soe.umich.edu/academics/bachelors_degree_programs/uste

## Honors Plan

Qualified students holding a cumulative GPA of 3.5 and a Spanish major GPA of 3.7 may apply to the Honors plan in Spanish at the beginning of the junior year. To apply students must fill out an application available on the department website at www.lsa.umich.edu/rll, and submit a copy of their transcript, a one-page statement of purpose, and a sample essay in Spanish. After reviewing the materials, the Honors advisor will interview the applicant to discuss his / her interests and objectives.

Spanish Honors majors are required to complete 33 credits of coursework and successfully defend a thesis:
I. Course Requirements. 11 courses ( 33 credits total): all regular Spanish major requirements must be completed ( 30 credits) and an additional Spanish course at the 400-level ( 3 credits). Also, 6 of the required 33 credits must include:

- ROMLANG 498 in the fall of students' senior year
- SPANISH 491 in the winter term of students' senior year


## II. Thesis Requirement

- Composition of a thesis in Spanish (40 pages minimum)
- A presentation and discussion of the thesis and of an agreed-upon set of related readings with members of the faculty (thesis defense).


## Romance Languages and Literatures

## May be elected as a departmental major

A major in Romance Languages and Literatures allows students to include more than one Romance language in a program of study that also encourages them to discover and to make connections between the two Romance languages and cultures that they choose to pursue. All students should consult with a department advisor to develop a program of study that best corresponds to their interests and career plans.

Study Abroad. Majors in Romance Languages and Literatures are encouraged to consider the possibility of studying abroad for at least one of their languages.

Prerequisites to the Major. Same as those for majors in the individual languages:

- FRENCH 235 for students of French
- ITALIAN 230, 232 or 233 for students of Italian
- PORTUG 232 or 280 for students of Portuguese
- SPANISH 277 (or SPANISH 275 \& 276) for students of Spanish

In addition, upper-level courses have the following prerequisites:

- Two French courses FRENCH 250-299 for most French courses 300 and above
- ITALIAN 235 for other major-level Italian courses
- Three 300-level Spanish courses for 400 -level Spanish courses

Requirements for the Major. A minimum of 42 credits consisting of the following:
I. A minimum of 33 credits of coursework in two languages (from French, Italian, Portuguese, or Spanish) that meet the following qualifications:

- only courses that would count towards the individual language majors may be used to satisfy this requirement
- courses must be listed in the LSA Course Catalog or LSA Course Catalogue as taught in the target language
- a minimum of 12 credits in each of the first two target languages
- a minimum of 21 credits from upper-level courses (at least six credits in each language)
N.b. "upper-level" means:

300 or above in French and Italian
400 or above in Spanish and Portuguese
II. A minimum of 9 additional credits in any Romance Language, including:

1. one course in Romance philology or comparative Romance linguistics
2. one elective:
a. a ROMLANG/ROMLING number; or
b. another major-level course in French, Spanish, Italian, or Portuguese (in English or the target language)
3. ROMLANG 498, the Senior Seminar in RLL

Part I of the requirements gives students the choice between treating the languages more or less equally and having "primary" and "secondary" languages.

Part II of the requirements fosters "bridges" between the two languages that are of both a practical/linguistic nature and an intellectual one.

Requirement II. 1 grounds the major in Romance Languages and Literatures in an understanding of the linguistic "kinship" between Romance languages. The following courses have been approved by the RLL curriculum committee as options for meeting the linguistics requirement (II.1):

- ROMLING 300, Introduction to the Romance Languages
- ROMLING 400, Topics in Romance Languages and Literatures, sections titled "Romance-Based Pidgins and Creoles" or "RomanceBased Bilingualism"
- LING 446/LACS 446.

Requirement II. 2 encourages students to explore the intellectual connections between the fields of French and Francophone studies, Hispanic studies, Italian studies, and Portuguese studies while fostering both a comparative and interdisciplinary understanding of Romance studies. Students should have their elective (Requirement II.2) approved by the RLL advisor.

All RLL majors will be enrolled in the senior seminar (Requirement II.3) during the fall academic term of their senior year. This seminar relies on students' prior coursework as a basis for reinforcing connections between courses in French, Italian, Portuguese, and Spanish as well as offers an introduction to the methods of Romance Studies and an exploration of potential topics for which crossing boundaries between languages might provide productive avenues of inquiry. A major component of the senior seminar involves individual research projects tailored to each student's linguistic competences.
Residence requirement: A minimum of 21 of the required 42 credits must be taken either in residence or through a study abroad program affiliated with the University of Michigan.

Honors Plan. Qualified students may be admitted to a program of advanced study, leading to the degree of Bachelor of Arts with Honors in Romance Languages and Literatures. The Curriculum Committee in Romance Languages and Literatures expects applicants to present evidence of superior language skills and a serious interest in comparative research involving both of their languages and the cultures articulated through them. Interested students should contact the Honors advisor in Romance Languages and Literatures toward the end of their junior year. Admission to senior-level Honors work in Romance Languages and Literatures is by application only. In addition to the application form (available on the department website at www.lsa.umich.edu/rll, students should submit a copy of their transcript, a one-page statement of purpose, and a sample essay.

The normal requirements for the major in Romance Languages and Literatures must be completed along with the following:

1. Composition of a thesis incorporating the results of individual research, the minimum length being 40 pages; and
2. A discussion of the thesis and of an agreed upon set of related readings with the student's faculty advisor and one other faculty reader. Ideally. the two readers will represent the student's two languages.

A grade point average of at least 3.5 in all courses, as well as in all courses taken for the major is required for admission and for graduation with Honors in Romance Languages and Literatures. For students opting to write an Honors thesis in Romance Languages and Literatures, the senior seminar constitutes their fall term of work on the thesis. In the winter term of their senior year, they enroll in ROMLANG 499, the Senior Honors Course, in which they will complete their thesis under the supervision of a faculty member whose research interests are more closely aligned with the student's.

Teacher Certification. By taking a number of courses in each language beyond the requirements for the major in Romance Languages and Literatures, students may qualify for teaching certification in both a major and a minor language. The exact requirements for certification are available at the following School of Education website:
www.soe.umich.edu/secondary/courses/requirements/majorminor
Candidates for a secondary school teaching certificate should study the general information about teaching certificate requirements, which appears under the "Teacher Certification Program" on the LSA website, and contact the School of Education.

## Romance Languages \& Literatures Minors French and Francophone Studies Minor

The French and Francophone Studies minor is not open to students electing a major in French and Francophone Studies or any other minor in Romance Languages and Literatures.

The French and Francophone Studies minor offers students majoring in other fields the opportunity to acquire additional competence in French and Francophone studies. The linguistic and cultural knowledge gained in the process may help expand not only the students' career opportunities, but also their critical awareness of the intellectual problems and possibilities involved in the study of cultures other than their own.

Prerequisites to the Minor: FRENCH 235.
Requirements for the Minor: 18 credits of courses in FRENCH numbered FRENCH 240 and above, with a minimum of 9 credits at the 300 level.

Constraints: No more than one French course taught in English without language prerequisites may be counted toward the minor. 300-level courses must include at least one course in Cultural and Literary Studies. At least 9 of the 18 credits for the minor must be taken in residence or in a study abroad program affiliated with the University of Michigan. Minors must take one of the following courses in RLL at the Ann Arbor Campus: FRENCH 340-379, 391-392, 402, 450-499.

To ensure that French majors and minors gain a broad range of knowledge in the French language, literature, and culture, a maximum of nine credits from FRENCH 380, 381, and 414 as well as any of their equivalents accepted as transfer and/or study abroad credit can count toward the major or minor.

## Italian Minor

Updated 2/18/2106, Fall 2016
The minor in Italian is not open to students with an Italian major or any other minor in Romance Languages and Literatures.

The objectives of the minor in Italian are to develop some facility in the use of Italian, to recognize major monuments of Italian literature, and to gain insight in to the history and present of Italian culture.

This minor offers students an opportunity to complement the knowledge gained in their principal field while focusing on linguistic competence and a grounding in one of the world's most historically influential, currently vibrant literatures and cultures.

## Prerequisites to the Minor

ITALIAN 230, 232, or 233; or the equivalent

## Requirements for the Minor

18 credits of courses in ITALIAN numbered ITALIAN 235 or higher, of which four courses must be conducted in the Italian language.

The 18 credits must include at least one course each at the 200-level beyond ITALIAN 233, the 300-level, and the 400-level.

ITALIAN 410 (Italian for Spanish Speakers) does not count toward the Italian minor requirements.

Residence Requirement. At least 10 of the 18 credits for the Academic Minor must be taken in residence or in a study abroad program affiliated with the University of Michigan. At least one course at either the 300- or 400-level, taught in Italian, must be taken in RLL at the Ann Arbor campus.

## Portuguese Minor

The objectives of the Portuguese minor are to facilitate students' proficiency and knowledge acquisition in the Portuguese language and on the cultures of the Lusophone (or Portuguese-speaking) world, namely, Angola, Brazil, Cape Verde, Mozambique, Guinea-Bissau, Portugal, and São Tomé and Príncipe. This minor offers students the opportunity to complement the knowledge gained in their principal field while focusing on linguistic competence and a grounding in one of the world's most spoken languages and its greatly diverse cultures. In addition to enhanced career opportunities, it also fosters critical thinking skills in relationship to cultures other than their own.

The Portuguese minor would attract undergraduate students at the University of Michigan from a variety of disciplines, ranging from the humanities and social sciences to the business school and the health sciences, who wish to complement their degree studies with proficiency in the Portuguese language as well as a solid knowledge foundation of Lusophone countries.

Prerequisites to the Minor: One of PORTUG 232, 280, or 415 , or the equivalent.

Requirements for the Minor: A minimum of 18 credits beyond PORTUG 232. PORTUG 287 Advanced Portuguese Conversation and Composition is required; students must choose PORTUG courses beyond PORTUG 287 for the remaining part of the course work.

Constraints. Neither PORTUG 280 nor PORTUG 415 may be counted toward the 18 credits for the Portuguese minor.

Students pursuing the minor in Portuguese may petition to have up to three courses (no more than 9 credits) from other units (for example, History, Afro-American and African Studies, as well as Latin American and Caribbean Studies), taught in English, which have a Brazilian, Lusophone African, and/or Portuguese focus to count for the minor. Courses from outside the PORTUG subject be approved in advance by a Portuguese advisor in the department of Romance Languages \& Literatures.

Residency Requirement: At least 9 of the 18 credits for the minor must be taken in residence or in a study abroad program affiliated with the University of Michigan.

## Spanish Language, Literature, and Culture Minor

Updated 4/23/2015, Winter 2016
Updated 3/21/2016, Fall 2016
The Spanish Language, Literature, and Culture minor is not open to students electing a major in Spanish or any other minor in Romance Languages and Literatures.

If you are majoring in another field, the Spanish Language, Literature, and Culture minor offers you an opportunity to complement the knowledge gained in your principal field, while adding a cultural and linguistic dimension to your academic experience.

Prerequisites to the Minor. SPANISH 277. The prerequisite will be waived for Residential College students who complete one RCLANG 324 readings course in Spanish. Students who complete a second and/or a third RCLANG 324 course will receive major credit for a Spanish elective at the 300 level. For eligible students, SPANISH 278, Spanish for Heritage Language Learners, can be substituted for SPANISH 277.

Requirements for the Minor. A minimum of 6 courses ( 18 credits) of at least 3 credits each, beyond the prerequisite, including:

- 3 courses of at least 3 credits each from SPANISH courses numbered 279 to 399
- 3 courses of at least 3 credits each from SPANISH courses at the 400level

Specific course selections must include three literature courses. Other courses, or "electives in Spanish," may be selected in Hispanic culture, linguistics, and film. Students should consult a department advisor and develop a balanced program of study that includes the cultural production of various countries and historical periods.

## Constraints:

- Each course to be counted toward the minor must be at least 3 credits.
- No more than one Independent Study and one internship course (6 credits) can be included in the major/minor.
- Students may count only one of ITALIAN 410 or PORT 280 toward the Spanish minor.
- SPANISH 308 does not count toward the minor.

Residence Requirement. A minimum of 4 courses of at least 3 credits each for the minor must be taken either in residence or through a studyabroad program affiliated with the University of Michigan.

# Center for Russian, East European, and Eurasian Studies (CREES) 

1080 South University Avenue, Suite 3668
(734) 764-0351 (phone)
(734) 763-4765 (fax)
www.ii.umich.edu/crees
e-mail: crees@umich.edu
The University of Michigan Center for Russian, East European, and Eurasian Studies is dedicated to advancing and disseminating interdisciplinary knowledge about the peoples, nations, and cultures of Russia, Central and Eastern Europe, and Eurasia, past and present. A constituent unit of the International Institute since 1993 and affiliate of the Weiser Center for Europe and Eurasia since 2008, CREES is a long-time recipient of federal education funding as a National Resource Center for this broad world area. It is one of the nation's leading institutes for interdisciplinary research and training on Russia, Central and Eastern Europe, and Eurasia.

Students with questions about the program are encouraged to schedule a meeting with the undergraduate academic advisor online at www.ii.umich.edu/crees.

Advising. Undergraduate Advisors at the International Institute are available to meet with undeclared students who would like to learn more about the program, and also with current majors and minors who would like to discuss course selection, degree requirements, major/minor releases, and other matters of concern. Appointments can be made through our online appointment calendar by clicking on: meet with an advisor. Information on all of our undergraduate programs and Walk-In Advising hours can also be found on our website: here. The International Institute's Undergraduate Advising Office is currently located at 1080 South University Avenue, Suite 2660.

## Russian, East European, and Eurasian Studies <br> May be elected as an area major

The undergraduate curriculum in Russian, East European, and Eurasian Studies offers broad, interdisciplinary training for students who wish to acquire extensive knowledge of a country or countries of the former Soviet Union and East Central Europe. Proficiency in a language of the region is an important component of the Russian, East European, and Eurasian Studies major. The degree prepares majors for graduate study as well as professional opportunities in areas ranging from government to business to teaching.

Prerequisites to the Major. One introductory course, usually SLAVIC 225: Arts and Cultures of Central Europe or RUSSIAN 231: Introduction to Russian Culture; or (if authorized by the undergraduate advisor) another 200-or 300-level REEES approved course, with a similar emphasis on breadth of coverage. (Narrowly focused courses, even if they appear on the REEES-approved list, are generally not acceptable as prerequisites.)

Requirements for the Major. A minimum of 30 credits, including:

1. REEES 340, 395, 396, or 397.
2. REEES 401 or its equivalent.
. Electives: At least 20 credits of REEES-approved upper-level (300-400) courses.

- Geographic distribution: at least one 3-credit course in each sub-area (Russia, Eastern Europe, and Central Eurasia) - including at least two of the three REEES survey ("gateway") classes: REEES 340, 395, 396/397 (i.e., may not count REEES 396 and 397 as different gateways)
- Disciplinary distribution: at least one 3-credit course in each sub-area (arts/culture, history, and social science). Courses (including REEES surveys) may count for both geographic and disciplinary distributions.

A list of REEES-approved and REEES-related courses is available on the CREEES website at www.ii.umich.edu/crees.

Russian, East European, and Eurasian Studies Language Requirement for the Major. Students must show proficiency at the level equivalent to three complete years of the sequence in Russian or Polish, or two years of the sequence for other languages, as demonstrated either by a placement test or by a grade of B- or higher in the final term. Further, all students in the Russian, East European, and Eurasian Studies major must actually complete at least two years (four terms) of relevant university-level language training as approved by the undergraduate advisor - through enrollment in language classes (of 3 credits or more) for a grade, not as an auditor or $P / F$, and earning a grade of B- or better in the final term. This training requirement means that students who satisfy the proficiency standards without actually taking classes, e.g., native speakers or those with prior experience or advanced high-school training, may choose either to take language (not literature) courses at the advanced-to-superior level or to begin acquiring a new language, usually a second area language (Russian, East European, or Central Eurasian). In some cases intellectual interests or career plans may justify another language (e.g., Persian, Turkish, German, Greek, etc.).

Honors Plan. Undergraduate majors who have maintained a 3.5 grade point average in the Russian, East European, and Eurasian Studies major and a 3.4 overall GPA may apply for admission to the Honors program. Applications for the program, which are available at the center's office, are accepted annually in November of the applicant's junior year. In addition to the application, students must submit a current transcript and a sample paper in the discipline in which they intend to write their Honors thesis. A maximum of 15 students will be accepted each year into the program.
Those accepted are expected to meet occasionally in an informal workshop at CREES and to work individually with their thesis advisor to prepare a prospectus. Credit for this preliminary work may be obtained by enrolling in REEES 402 for two credits. During their senior year, students may elect REEES 403 for each term (receiving a Y grade in December), for a two-term total of six credits. Completed theses, which must be submitted by a duedate in late March, will be read by at least two faculty members including the student's advisor. These theses ideally involve substantial use of foreign-language (REE) texts/sources/documents/databases. Grades for theses will be based on the quality of the research, analysis, and writing they display. The letter grade for REEES 403 and the levels of Honors with which the student will be graduated are:

| A+ | Highest Honors |
| :--- | :--- |
| A | High Honors |
| A- | Honors |
| B+ or below | No Honors |

Students with questions about the program are encouraged to schedule a meeting with the undergraduate academic advisor online at www.ii.umich.edu/crees.
Concurrent Undergraduate / Graduate Studies (CUGS) Program. Majors who are advanced in their studies and have exhausted the undergraduate resources in Russian, East European, and Eurasian Studies are encouraged to talk with the undergraduate advisor about applying for enrollment in LSA and the Rackham Graduate School through the Concurrent Undergraduate-Graduate Studies (CUGS) Program in LSA.

## Russian, East European, and Eurasian Studies Minors

The minors provide interdisciplinary surveys of three separate geographic sub-domains covered by the major in Russian, East European, and Eurasian

Studies. The Center offers three interdisciplinary minors to students who wish to:

- better understand the history and culture of either Russia and the former Soviet Union or Eastern Europe or Central Eurasia (especially the countries of Transcaucasia, Central and Inner Asia).
- gain insight into the political, economic, and social transitions taking place in the region.

Those electing a major in the Department of Slavic Languages and Literatures may pursue a Russian, East European, and Eurasian Studies minor, but may not count any Slavic Department courses toward satisfying the requirements for the REEES minor. Students may concurrently pursue a minor in both REEES and Slavic Languages and Literatures, with the following restrictions:
2. Russian, East European, and Eurasian Studies minors may not count any courses for which Slavic is the home unit;
3. Slavic Department minors may not count REEES 397 nor any courses for which Russian, East European, and Eurasian Studies is the home unit, which includes SLAVIC 395 and 396.

## Central Eurasian Studies

Central Eurasia stretches from Turkey in the west through Mongolia in the east. It includes a variety of religious and cultural communities, from historically Christian groups such as the Armenians and Georgians to Buddhist groups such as the Buryats. It includes the Turkic, Mongolian, Iranian, Caucasian, and Tibetan peoples that fall between the well-known areal blocks of Slavic/Russian, Middle Eastern/Arabic, Chinese/East Asian, and Indian/South Asian Studies. Michigan's offerings concentrate with particular depth on the Turko-Persian Islamic cultures in the heartland of Central Asia.

The Center offers an interdisciplinary minor to students who wish to: a) better understand the history, society, and culture, of Central Eurasia (the countries of Transcaucasia, Central and Inner Asia) and b) gain insight into contemporary political, economic, and social issues in the region. The minor in Central Eurasian Studies does not have prerequisites or require knowledge of a language of the region.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses on Central Eurasia, selected in consultation with and approved by the undergraduate academic advisor. A minimum of three courses that will be counted toward the minor must be upper-level ( 300 - or 400 -level).

1. REEES 340/HISTORY 340/AAPTIS 340/ASIAN 340/MENAS 340: From Genghis Khan to the Taliban: Modern Central Asia.
2. Disciplinary distribution: at least one 3-credit course in each sub area (arts/culture, history, and social science).

Constraints: Not open to those electing a major or another minor in Russian, East European, and Eurasian Studies.

## East European Studies

CREEES offers an interdisciplinary minor to students who wish to: a) better understand the history and culture of Central and Eastern Europe and b) gain insight into the political, economic, and social transitions taking place in this region. The minor in East European Studies does not have prerequisites or require knowledge of a language of the region.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses on East European topics, selected in consultation with and approved by the undergraduate academic advisor. A minimum of 3 courses that will be counted toward the minor must be upper-level (300- or 400-level).

1. REEES 396 or 397
2. Disciplinary distribution: At least one 3-credit course in each sub-area (arts/culture, history, and social science).
Constraints: Bosnian/Croatian/Serbian, Czech, Polish, or Ukrainian language courses may not count toward the minor. Not open to those electing a major or another minor in Russian, East European, and Eurasian Studies.

## Russian Studies

The Center offers an interdisciplinary minor to students who wish to: a) better understand the history and culture of Russia and the former Soviet Union and b) gain insight into the political, economic, and social transitions taking place in this region. The minor in Russian Studies does not have prerequisites or require knowledge of a language of the region.

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 15 credits of courses on Russian specific topics, selected in consultation with and approved by the undergraduate academic advisor. A minimum of 3 courses that will be counted toward the minor must be upper-level (300- or 400-level).

1. REEES 395
2. Disciplinary distribution: At least one 3-credit course in each sub-area (arts/culture, history*, and social science).
*In most cases, students who have taken REEES 395 should not enroll in HISTORY 434.
Constraints: Russian language courses may not count toward the minor. Not open to those electing a major or another minor in Russian, East European, and Eurasian Studies.

## Program in Science, Technology and Society (STS)

2713 Haven Hall (office) / 1029 Tisch Hall (post)
435 South State Street
(734) 763-2066 (phone)
(734) 647-4881 (fax)
www.umich.edu/~umsts
e-mail: umsts@umich.edu
Undergraduate Advising: sts.minor.advisor@umich.edu
Graduate Advising: sts.grad.advisor@umich.edu
The U-M STS Program offers a structured academic curriculum through which students can explore the social, cultural, ethical, and political dimensions of science, technology, and medicine. Our program addresses a number of U-M's most important research and education priorities, including:

- Building awareness of how science, technology and medicine shape and inform modern societies.
- Identifying the social, political, and ethical problems characteristic of a highly technological world
- Explaining how science, technology, and medicine vary among the world's cultures, past and present
- Educating citizens to be engaged participants in the ongoing revolutions in science, technology, medicine, and information

STS presently offers an undergraduate minor as well as a graduate certificate.

# Screen Arts and Cultures 

6330 North Quad
105 South State Street
(734) 764-0147 (phone)
(734) 936-1846 (fax)
www.lsa.umich.edu/sac
e-mail: sac.info@umich.edu
The curriculum in Screen Arts and Cultures provides an integrated program of courses in the history, aesthetics, theory, and techniques of film and moving image electronic media (television, single camera video, digital). Emphasis is placed on a liberal arts sequence that provides students with a solid foundation for understanding how film and electronic-based visual media arise out of varied cultural, historical, social, and technological circumstances. Two prerequisite courses prepare them for advanced study in the history and aesthetics of moving image media and for production courses. An introductory course in production gives students hands-on experience in film, video, and television. Courses in film history prepare students for electives in the films of specific cultures, nations, and time periods, as well as in the study of film style illuminated by the work of individual artists and in various genres. Television history allows them to assess trends in the social, technological, and formal development of the most influential medium of the second half of the twentieth century. Required courses in theory and criticism examine the methods that have been used to study film, television, and digital media.
Production core courses are designed to help majors work creatively in film and moving image electronic media (television, single camera video, digital) as they become familiar, through electives, with interdisciplinary, humanistic perspectives on how moving image technology has been used in different cultures as a medium of communication and artistic expression, and how various kinds of institutional practice have characterized its use. The Screen Arts and Cultures curriculum is designed to prepare students for more advanced work in film writing and criticism, in creative film, video-making, and studio television work, and for advanced study in graduate programs in moving image media.

## Special Departmental Policies

effective Fall 2016-4/13/2016
A grade of C - or better must be achieved in any course taken to satisfy the requirements for the Screen Arts and Cultures major.

Prerequisites for the SAC major may be taken for a grade or may be taken P/F.

A minimum grade of C - or better must be achieved in any course taken to satisfy the requirements for the Global Media Studies Minor.

## Screen Arts and Cultures

May be elected as an interdepartmental major
Updated 11/14/2015 - effective Winter 2016
Updated 4/13/2016 - effective Fall 2016
Prerequisite to the Major. SAC 236 and SAC 272, each completed with a minimum grade of C-. Prerequisites for the SAC major may be taken for a grade or may be taken P/F.

Students will apply for entry to the major after having completed the prerequisites with a minimum grade point average of 2.0. In accord with LSA policies, students who do not meet the minimum grade requirement but still hope to declare the Screen Arts and Cultures major may retake one prerequisite course. If they meet the criteria above with the new grade they earn in the re-taken course, they may declare Screen Arts and Cultures as their major.

Requirements for the Major ( 30 credits). A grade of C- or better must be achieved in any course taken to satisfy the requirements for the major.

1. Core Required Courses ( 21 credits).
A. Two history courses: SAC 352 and one additional history course selected from among the following: SAC 353, 354, or 355.
B. One theory course beyond the prerequisite selected from among the following: SAC, $372,375,376$, or 461.
C. Introduction to production course: SAC 290.
D. Two production or writing courses selected from the following: SAC 300, 301, 302, 304, 306, 307, 310, 311.
E. One studies course selected from among the following in national, regional, or transnational cinema: SAC 250, 313, 314, 316, 332, $333,334,341,346,358,365,368,380,381,440,441,442,458$, 470, 485; GERMAN 346; AMCULT 346; or a similar course preapproved by the advisor.
2. Required Electives ( 9 credits; 3 courses): Three SAC courses at the 300 or 400 level, with no more than two courses in production

## Production Courses

- SAC 300 - SAC 307 - SAC 402 - SAC 410
- SAC 301 - SAC 310 - SAC 403 - SAC 411
- SAC 302 - SAC 311 - SAC 404 - SAC 423
- SAC 304 - SAC 400 - SAC 405 - SAC 427
- SAC 306 - SAC 401 - SAC 406

Advising. Students who may be interested in a major in Screen Arts and Cultures are encouraged to consult with a department advisor. Appointments are scheduled online at:
https://webapps.Isa.umich.edu/AdvAppts/AA_StuSelfSvc1.aspx?ctgy=SAC
Honors Plan. The Honors plan in the Department of Screen Arts and Cultures offers qualified Screen Arts and Cultures majors a special opportunity. Upper-level students with strong academic records and a demonstrated ability to carry out the independent work required to complete an Honors thesis, screenplay, film, video or digital production are encouraged to apply. The Screen Arts and Cultures Honors plan is not restricted to students who have been in the College Honors Program in their freshman and sophomore years.

Upon successful completion of the Honors plan, students may graduate with "Honors," "High Honors," or "Highest Honors" in Screen Arts and Cultures, depending on the evaluation of their thesis, screenplay, or project. These Honors designations appear on their diploma along with any College Honors designations they earn from their overall grade point.

Students accepted into the Honors plan also become members of the Honors Program of the College of Literature, Science, and the Arts. As members of the LSA Honors Program, they gain access to a variety of special services such as possible financial support for their Honors work. In addition, students may also apply for competitive scholarships administered by the Department of Screen Arts and Cultures to help with costs associated with Honors projects.

Admission. To be considered for the Honors plan, students must have a grade point average of 3.5 or higher in the Screen Arts and Cultures major. Students must also identify a Screen Arts and Cultures faculty sponsor and file an application for admission to the Honors plan no later than three terms prior to the intended graduation date. For further information, contact the Screen Arts and Cultures Department at (734) 764-0147.

## Screenwriting submajor

Updated 4/22/2016, effective Winter 2014 retroactive
The department offers a submajor in Screenwriting to undergraduate students in the Screen Arts \& Cultures major who demonstrate a special talent for writing for the screen.

Students interested in the submajor must take the same prerequisite courses required of students wishing to declare the Screen Arts \& Cultures major. Students with a minimum grade point average of 2.0 in these three
courses should meet with an advisor to declare their major in Screen Arts \& Cultures. Students must then take SAC 290 and 210, followed by SAC 310. After successful completion of SAC 310, and acceptance and successful completion, B- (changed 4/22/2016 effective Winter 2014) or better, in SAC 410, the student may apply for the Screenwriting submajor. The student should contact the Coordinator of Screenwriting to state his/her interest in applying to the submajor.

Final approval for the Screenwriting submajor is based on the student's acceptance and successful completion, B or better, of one of the following:

- SAC 427, Screenwriting III

OR
SAC 423, Practicum for the Screenwriter (only if the student is
selected as one of the two screenwriters for the course)

- SAC 311, Screenwriting for Television

Note: If a student is not accepted into the Screenwriting submajor, he or she may continue with the Screen Arts and Cultures major. The courses required of the student to apply for the submajor will all satisfy requirements in the general SAC major, whether or not the student is successful in his/her application to the Screenwriting submajor. Students who receive notice of their acceptance into the Screenwriting submajor from the Screenwriting Coordinator should see the Associate Chair of Screen Arts \& Cultures to complete a revised major declaration form to notify the college of their admission into the Screenwriting submajor.

Submajors are expected to complete all normal Screen Arts and Cultures requirements for the major in the studies-based part of the curriculum.

Honors in Screenwriting. After successful completion of SAC 410, students with a GPA of 3.5 or above in the Screen Arts and Cultures major and 3.4 GPA overall may wish to declare Honors in Screenwriting. Interested students should consult the Coordinator of Screenwriting.

## Screen Arts and Cultures Minor

## Global Media Studies

The minor in Global Media Studies is not open to students with a major in the Department of Screen Arts and Cultures.

## Updated 4/13/2016 - effective Fall 2016

Students interested in the minor in Global Media Studies should develop a specific plan for its completion in consultation with one of Screen Arts and Cultures' designated advisors. Appointments are scheduled online.

The Global Media Studies minor exists for students interested in the study of film and electronically based visual media as national, regional, and global phenomena. This course of study is intended to aid students in obtaining culturally specific as well as cross-cultural understanding of the global impact of moving image media. The minor contributes to an understanding of the unique qualities of textual expression derived from specific cultural and historical contexts as well as to effects of more globalized developments in media technology, narrative and stylistic forms. Students will have the opportunity to study specific cultural modes of media production and reception including, but not limited to, the familiar
U.S. cultural/industrial model. The coursework in this minor provides students with the opportunity to reflect on the expansive geographical scope and cultural diversity of film and moving image electronic media (television, single-camera video, digital).

## Prerequisites to the Minor: None.

Requirements for the Minor: At least 16 credits (and five courses), to be chosen from the following three categories as stated below, with at least two courses at the 300-level or above.

A minimum grade of C - or better must be achieved in any course taken to satisfy the requirements for the Global Media Studies Minor.

1. Required Core Courses: seven credits from the following:
A. SAC 236
B. One of the following: SAC 351, 352, or 353 .
2. Electives. Students should take at least two of their elective courses at the 300 level or higher. Students are prohibited in the Category A of this minor from taking more than one course grounded in any single national cinema.
A. Moving Image Media in National \& Regional Contexts. Two courses totaling at least six credits are to be chosen from the following approved electives, with no more than one course centered on U.S. media or in a single, non-U.S. national cinema

## U.S. media

AMCULT 334, 351, 490
SAC 334, 335 (effective Winter 2017), 355, 365, 366 (approved topics), 367, 368, 381, 450, 451, 460

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Non U.S. media
    AAS 232,440
    AMCULT 420
    ASIAN 245, 458, 475
    GERMAN 172, 330, }33
    RCHUMS 312, }31
    SAC 232, 245, 358, 440, 441, 455 (approved topics), 458
    SLAVIC 312, }31
    SPANISH 420
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B. Comparative Media Studies. One course of at least three credits to be chosen from among the following approved electives:
AAS 232, 442,470
AMCULT 380
ASIAN 440
PHIL 440
SAC 361,366 (approved topics), $380,420,422,442,455$ (approved
topics), 470,485
WOMENSTD 361

[^1]
# Slavic Languages and Literatures 

3040 Modern Languages Building
812 East Washington Street
(734) 764-5355 (phone)
(734) 647-2127 (fax)
www.Isa.umich.edu/slavic
e-mail: slavic@umich.edu
The department teaches the languages, literatures, and cultures of the Slavic nations. The Russian language is the fifth-most spoken language in the world; in addition there are some one hundred and fifty million speakers of Czech, Polish, Bosnian/Croatian/Serbian, and Ukrainian. These are vehicles of some of the world's great cultures and are of increasing importance as a key to communication in trade and technology. Courses are offered in Slavic languages, literatures, and cultures. The undergraduate curriculum is designed primarily to provide competence in Czech, Polish, and Russian along with knowledge of Czech, Polish, and Russian literature and cultures. The department also offers courses in Bosnian, Croatian, and Serbian, as well as Ukrainian. Majors are offered in Polish and Russian, minors in Bosnian / Croatian / Serbian, Czech, Polish, Russian, Ukrainian, and Cultures and Literatures of Eastern Europe.

The curriculum provides the language training prerequisite to specialization in a variety of careers (e.g., government, diplomacy, international trade, teaching), and offers an enriching cultural and linguistic background to non-majors, especially those interested in the ethnic heritage of the Slavic peoples.

## Russian

May be elected as a departmental major

## Effective Fall 2016 - Updated 4/14/2016

The Russian major aims to combine, in the best traditions of a liberal arts degree, practical language learning with the study of culture broadly understood. It provides extensive language training and demanding courses in literary history and analysis. Moreover, the Department firmly believes that serious language study offers broad intellectual benefits in and of itself. In the upper-level Russian language courses, it aims to develop linguistic self-consciousness and a basis for the study of linguistics proper. In literary studies many undergraduates take not only the required courses (both in translation and in Russian), but also elect more specialized courses such as "monograph" studies of Pushkin (RUSSIAN 461), Dostoevsky (RUSSIAN 462), Chekhov (RUSSIAN 463), and Tolstoy (RUSSIAN 464).

Russian is also an especially rewarding second major when combined with political science, history or another social-science discipline. Students who complete the intensive year-long language program in their first year are particularly well equipped to follow the dual-major path.

Students have three possible ways to complete the Russian major:

- the standard major, based on the study of Russian literature and language
- a Culture track
- a Heritage Speakers track


## Requirements for the Major

A. Russian Language and Literature

1. Prerequisites to the Major. RUSSIAN 101, 102, 201, and 202, (or RUSSIAN 103 and 203 or RUSSIAN 123 and 223) or the equivalent. Interested students are advised to begin Russian during their first year.
2. Core Courses:

- RUSSIAN 301 (or RCLANG 323) and 302, or 303
- RUSSIAN 401 and 402
- RUSSIAN 451 or 499
- RUSSIAN 347, plus 348 or 375
- Russian literature/culture after 1900: at least one course (e.g., RUSSIAN 361, 450, 467, 468, 469, 470, 471, 472, 475, SLAVIC 313, 470).

3. Cognates for Russian Language and Literature: courses studying some other aspect of Russia (special attention is called to the courses listed under Russian and East European Studies.) or three or more credits in advanced courses (300-level or above) in another Slavic language (Czech, BCS, Ukrainian, or Polish) or another foreign language.
B. Culture track (subplan)
4. Prerequisites to the Major. RUSSIAN 101, 102, 201, and 202, (or RUSSIAN 103 and 203 or RUSSIAN 123 and 223) or the equivalent. Interested students are advised to begin Russian during their first year.
5. Core Courses:

- RUSSIAN 231 or SLAVIC 270 or 240 or 281
- RUSSIAN 301 (or RCLANG 323) and 302; or 303
- RUSSIAN 401 and 402
- RUSSIAN 451 or 499

3. Upper-Level Electives for Culture Subplan:

At least two of RUSSIAN 322, 347 or 348, 358, 361, 375, 391, 477, SLAVIC 313, 470, 481.
4. Cognate requirement for Russian Language and Literature: Cognate for Russian Language and Literature: courses studying some other aspect of Russia (special attention is called to the courses listed under Russian and East European Studies.) or three or more credits in advanced courses (300-level or above) in another Slavic language (Czech, BCS, Ukrainian, or Polish) or another foreign language.

## C. Heritage Speakers track (subplan)

1. Prerequisites for Heritage Speakers Subplan: RUSSIAN 225 or 202, or equivalent, or placement in an upper-level course; and RUSSIAN 231.
2. Core Courses for Heritage Speakers Subplan:

- RUSSIAN 325 or 302 , or equivalent
- RUSSIAN 401 and 402
- RUSSIAN 501 and 502
- two of: RUSSIAN 451, RUSSIAN 499, RCLANG 323

3. Upper-Level Electives for Heritage Speakers Subplan: At least two of RUSSIAN 347, 348, 361, 375, 450, or other literature courses with permission of advisor.
4. Cognate requirement for Russian Language and Literature: Cognate for Russian Language and Literature: courses studying some other aspect of Russia (special attention is called to the courses listed under Russian and East European Studies.) or three or more credits in advanced courses ( 300 -level or above) in another Slavic language (Czech, BCS, Ukrainian, or Polish) or another foreign language.

Honors Plan. Undergraduate majors who have maintained a 3.5 grade point average in Russian courses and 3.4 overall GPA may apply for admission to the Honors plan. In addition to regular requirements for the major, qualified Honors majors work on a major project during the senior year, and complete an Honors thesis based on their research.
Advising. Professor Michael Makin, the undergraduate department advisor, should be consulted by prospective majors before the end of the sophomore year. Appointments are scheduled online at
www.lsa.umich.edu/slavic/undergraduate/advising.
Teaching Certificate. Candidates for a teaching certificate with a teaching minor in Russian should consult Professor Makin and the School of Education Teacher Education office, 1228 School of Education Building,
(734) 615-1528. Information about general requirements for a teaching certificate appears elsewhere.

## Polish

## May be elected as a departmental major

The Polish Program at the University of Michigan is considered one of the strongest, possibly the strongest, Polish programs in the country. Language courses are the core, with offerings including First, Second, Third, and Fourth Year Polish. U-M is thus the only American university to offer four levels of Polish every year. It also offers on a regular basis Polish literature survey courses, as well as courses on Polish drama, novel, film, and popular culture. People of Polish heritage form the fourth largest ethnic group in the state of Michigan, and a great number of students at the University of Michigan have Polish roots. The strength of the program has been possible thanks to intensive cooperation with the Center of Russian, East European, and Eurasian Studies. The Center actively supports Polish activities across the campus and helps coordinate a large network of faculty that include in their teaching and research different aspects of Polish culture. The Polish program also benefits from the activities of the Copernicus Endowment, most notably its annual Copernicus Lectures delivering leading Polish scholars, artists, writers, and public figures.
The major is intended for undergraduates who have in interest in Polish language and culture for academic, cultural, or frequently heritage reasons. It will appeal to students who are contemplating professional, scholarly, or business careers that will involve work in Poland. Its goal is to give interested students a solid base in Polish language and culture, knowledge they can apply in a future academic and/or professional career. It aims to enable research and day-to-day communication, at the same time that it provides competence in salient aspects of Polish literature and culture.

In addition to the major, the department offers a minor in Polish Language, Literature, and Culture.

Prerequisites to the Major. POLISH 121, 122, 221, and 222, or the equivalent.

Major ( 27 credits). At least 15 of the 27 credits must be upper-level (300 or above).

1. Polish Language: 6-12 credits of POLISH 321, 322, 421, 422; or equivalent
2. Polish Literature: 6-9 credits of POLISH 325, 326, 432
3. Polish Culture: 6-9 credits of POLISH 214, 215, 314, 450, SLAVIC 490 (appropriate sections)*
4. Electives. 3-9 credits of:

- SLAVIC 225, 240, 270, 312, 396, 490* (Polish topics)
- HISTORY 330, 331
- REEES 396
* (appropriate sections of SLAVIC 490 include "Rocks Kill Communism" and "Revolution in the Attic")

Up to two terms of another Slavic language (Bosnian / Croatian / Serbian, Czech, Russian, Ukrainian); see department for additional course options).

Residence Requirement. At least 15 of the 27 required credits must be taken in residence or through a study abroad program affiliated with the University of Michigan.

Study Abroad credit may count toward the major. Please consult with the Polish advisor prior to studying abroad.

Honors Plan. Undergraduate majors who have maintained a 3.5 grade point average in Polish courses and 3.4 overall GPA may apply for admission to the Honors plan. In addition to regular requirements for the major, qualified Honors majors work on a major project during the senior year, and complete an Honors thesis based on their research.

Advising. Piotr Westwalewicz should be consulted by prospective majors before the end of the sophomore year. Appointments are scheduled online at
www.Isa.umich.edu/slavic/undergraduate/advising.

## Slavic Languages and Literatures Minors

Students may concurrently pursue a minor in both REEES and Slavic with the following restrictions: (1) REEES minors may not count any courses for which Slavic is the home unit; (2) Slavic minors may not count REEES 397 or any courses for which REEES is the home unit, which includes SLAVIC 395 and 396.

Students wishing to pursue a minor in the Department of Slavic Languages and Literatures must develop a specific plan for its completion in consultation with the department's designated advisor:

Eastern Europe: Prof. Michael Makin<br>Bosnian/Croatian/Serbian: Prof. Tatjana Aleksić<br>Czech: Prof. Jindrich Toman<br>Polish: Dr. Piotr Westwalewicz<br>Russian: Prof. Michael Makin<br>Ukrainian: Svitlana Rogovyk

Appointments are scheduled online at
www.Isa.umich.edu/slavic/undergraduate/advising.

## Bosnian/Croatian/Serbian (BCS) Literature \& Culture

Not open to those who are electing a major in Russian, East European, and Eurasian Studies. Students could concurrently pursue this minor with one in REEES with the following restrictions: (1). REEES minors may not count any course for which Slavic is the home unit. (2). Slavic minors may not count REEES 397 or any course for which REEES is the home unit, which includes SLAVIC 395 and 396.

This minor provides students with a fundamental competence in BCS, as well as the knowledge of literary and cinema masterpieces from the region.
The BCS minor is a vibrant program that integrates political, architectural, and cultural knowledge with the already rich program of Eastern European studies. Its curriculum broadens the perspective needed for academics, diplomats, journalists, businesspersons, and future specialists on the history, language, literature, and politics of the Western Balkans. This program will be of particular interest to undergraduate students in majors like History, Political Science, Sociology, or Judaic Studies. It will also provide a necessary venue for a considerable body of students who are heritage speakers of BCS, and for those interested in the culture of the former Yugoslavia and its successor states.

This minor may represent an opportunity for a growing number of economics, politics, and diplomacy professionals employed in the Western Balkans, both in the government-sponsored and NGO sectors. The BCS minor will offer them a chance to gain linguistic competence, as well as prepare them for easier access to the BCS-speaking countries' cultural and social contexts [Serbia, Croatia, Bosnia, Montenegro, as well as Kosovo]. The courses included in the minor provide an excellent introduction into the political context of the unification of the Kingdom of Yugoslavia, the refusal of the Socialist Yugoslavia to become part of the Stalinist Eastern Europe, the subsequent 50 years of specific Yugoslav socialism, as well as causes and consequences of the dissolution wars that occupied the entire decade of the 1990s. Students will learn about the masterpieces produced by writers from the region, both by those who were openly critical of the political developments in specific periods, as well as those who kept their criticism limited to their work. An amazing discovery for students awaits in the film production from the region, where the level of artistic freedom and criticism of contemporary society is second to none. Ultimately, some courses address specific contemporary issues of ideology, racism, immigration, or gender and sexual discrimination, and they can be of interest even to those students who may have neither heritage links nor specific career plans connected to BCS.

Prerequisites to the Minor. BCS 131, 132, and 231, or equivalent, as determined by the departmental placement examination.

Minor Program. 16 credits of courses, including BCS 232 (4 credits) and 12 credits in courses selected from the following two categories, with at least 6 credits from Category A and no more than 6 credits from Category B:

Category A: BCS Courses Language, Literature, and Culture. Courses in Category A encourage students to continue their language study through literary classes and individualized work with an instructor, concentrating on BCS culture, literature and history.

- BCS 350 / JUDAIC 350 / REEES 350. Legacy of the Holocaust in Yugoslav Culture: How and Why We Need to Narrate the Holocaust
- BCS 436. Modern Bosnian/Croatian/Serbian Literature
- BCS 437. Yugoslav Literature of Exile: Nowhere People-Exiles from the State of Ideology
- BCS 439. Directed Reading of Bosnian/Croatian/Serbian Literature
- HISTORY 431. History of the Balkans Since 1878
- SLAVIC 471. Seminar in Cultural Studies of Central, Eastern and Southern Europe, section entitled "Technologies of Memory"

Category B: Courses on Central/Eastern European Slavic Culture. Category B courses place the cultural space of the Western Balkans (the area where BCS is spoken) into a larger Central European political, cultural and historical context.

- POLISH 215. Heart of Europe: Poland Today
- SLAVIC 225. Arts and Cultures of Central Europe
- SLAVIC 312 / RCHUMS 312. Central European Cinema
- SLAVIC 423. Central European Literature in the Twentieth Century
- SLAVIC 490. Issues in the Cultures of Eastern Europe (appropriate topics)
- REEES 405. Topics in Russian, East European, and Eurasian Studies (appropriate topics)


## Cultures and Literatures of Eastern Europe

The minor in Cultures and Literatures of Central Europe is intended for students interested in developing their knowledge and understanding of Slavic studies but who are unable to dedicate time to language study to complete a rigorous program of study.

This minor affords such students the opportunity to build their new interest into a recognized program of academic study with a framework that would enable coordinated study over several terms. This program has been designed specifically for students who have either:

- become interested in Slavic studies later in their academic careers and are thus unable to complete a language requirement; OR
- demanding majors that do not include flexibility to take on an extensive course of language study but are interested in the literatures and culture of Eastern Europe.
The minor is divided between Russian Studies, and Polish, BCS, Czech, Eastern-European Jewish studies, and cross-cultural Slavic studies (reflecting the overall distribution of course offerings in the Department). Students must take courses from both of these groups, and may choose to specialize in Russian studies, or in one or more other areas of Eastern and Central European culture. Thus, a student completing this minor will have acquired relatively detailed knowledge in at least one area of the department's specialization, while also having been exposed to the diversity of cultures found between the Danube and the Pacific Ocean.
Prerequisites to the Minor. None. No knowledge of the languages of Eastern Europe is required.

Minor Program. At least fifteen credits elected in the following courses in Eastern European Literatures and Cultures, of which only one course may be below the 300 -level. Students may take as many courses as they like in one of the two groups, but must elect a minimum of six credits in the other group:

- Group A: POLISH 214, 215, 314, 325, 326; CZECH 315, 484; BCS 436; SLAVIC 225, 240, 270, 281, 312, 470, 481, 488, 490.
- Group B SLAVIC 313, 315, 316; RUSSIAN 231, 322, 346, 347, 348, 356, 358, 361, 444, 450, 453, 454, 460, 462, 463, 464, 466, 467, 468, 469, 473, 474.


## Czech Language, Literature, and Culture <br> Updated 11/12/2013, Winter 2014

The minor in Czech Language, Literature, and Culture is designed to give students a fundamental competence in Czech language upon which they can build, as well as a knowledge of some of the major cultural achievements and individual masterpieces of Czech literature and cinema.

The intended audience comprises all undergraduates with substantial interest in Czech studies. Such students might include those who envision doing professional work in the Czech Republic, those intending to pursue graduate work in areas related to Czech culture and society, as well as those who may wish to learn more about their own heritage.

The minor presents the opportunity to gain basic competence in Czech language, upon which one can build toward whatever higher level of proficiency one requires. Furthermore, the minor gives students exposure to and knowledge of the work of some of the major figures in Czech culture, including such internationally acclaimed authors as Jaroslav Hašek, Karel Čapek, and Milan Kundera, as well as the Nobel Prize winning poet Jaroslav Seifert. The ways in which Czech culture met the challenges of World War II, and of the subsequent forty years of Communist rule, is given major emphasis in several of the courses. Students may also learn about the important contributions of Czech filmmakers to world culture. Thus, the minor will have substantial value for all students who have an intellectual interest in Czech culture, even in cases where Czech studies do not figure directly in the student's career plans. This might be the case particularly for students who trace part of their own family heritage to the Czech lands. Finally, several of the courses address question about ethnic discriminations as they have been dealt with in literature and film, a feature which would deepen students' understanding through the comparative perspective it would provide.

Prerequisites to the Minor. CZECH 241 or equivalent.
Minor Program. 16 credits of courses, including CZECH 242 ( 4 credits) and 12 credits in courses selected from the following two categories, with at least 6 credits from category $B$.

Category A: Courses on Central European Slavic Culture (no more than 6 credits from Category A may count in the minor):

- SLAVIC 225 (Arts and Cultures of Central Europe)
- SLAVIC 312 (Central European Cinema)
- SLAVIC 423 (Central European Literature in the Twentieth Century)

Students may count up to 3 credits of Third-Year Czech (CZECH 341 and 342) toward the minor.

Category B: Courses on Czech culture, literature, and cinema (at least 6 credits are required from Category B):

- CZECH 315 (Czech Cinema)
- CZECH 480 (Supervised Czech Reading)
- CZECH 483 (Czech Literature from the Middle Ages to the Enlightenment)
- CZECH 484 (Modern Czech Literature)
- SLAVIC 470 (Topics in Cultural Studies of Central, Eastern, and Southern Europe) (appropriate sections)
- SLAVIC 490 (Issues of the Cultures of Eastern Europe) (appropriate sections)


## Polish Language, Literature, and Culture

The minor in Polish Language, Literature, and Culture is designed to give students a fundamental competence in Polish language upon which they can build, as well as a knowledge of some of the major cultural achievements and individual masterpieces of Polish literature and cinema.

The intended audience comprises all undergraduates with substantial interest in Polish studies, but with insufficient time to pursue a major in this area. Such students might include those who envision doing professional work in Poland, those intending to pursue graduate work in areas related to Polish culture and society, as well as those who may wish to learn more about their own heritage.

Prerequisites to the Minor. POLISH 121, 122, and 221, or equivalent.
Minor Program. 16 credits of courses; at least 6 of which must be taken at the upper level ( 300 or above):

1. Polish language: POLISH 222, or equivalent
2. Polish literature and culture: 6 credits in POLISH 214, 215, 314, 325, $326,432,450$, SLAVIC 490*
3. Electives:

- 6 credits in SLAVIC 225, 240, 270, 312, 396, 423, 490 (appropriate sections*)
- HISTORY 330, 331
- Up to three credits of Third-Year Polish (POLISH 321 and 322) may be counted.
See department for additional course options
* (appropriate sections of SLAVIC 490 include "Rocks Kill Communism" and "Revolution in the Attic")

Residence Requirement. At least 8 of the 16 required credits must be taken in residence or through a study abroad program affiliated with the University of Michigan.

Study Abroad credit may count toward the minor. Please consult with the Polish advisor prior to studying abroad.

## Russian Language, Literature, and Culture

The minor in Russian Language, Literature, and Culture is designed to give students a fundamental competence in Russian language upon which they can build, as well as a knowledge of some of the major cultural achievements and individual masterpieces of Russian literature and cinema.

The intended audience comprises all undergraduates with substantial interest in Russian language, literature, and culture, but with insufficient time to pursue a major in this area. Such students might include those who envision doing professional work in Russia, those intending to pursue graduate work in areas related to Russian culture and society, as well as those who may wish to learn more about their own heritage.

Prerequisites to the Minor. RUSSIAN 201 or equivalent.
Minor Program. RUSSIAN 202 or 203 or 223 or RCLANG 293, and 12 additional credits in courses selected from among the following, with at least 6 credits elected at the upper level:

- RUSSIAN 231, 301, 302, 303, 322, 346, 347, 348, 358, 361, 450, 451, 453, 462, 463, 464, 466, 469, 474, 478, 479, 480, 499
- SLAVIC 240, 313, 315, and 316


## Ukrainian Language, Literature, and Culture

A minor in Ukrainian Language, Literature, and Culture would provide to students already engaged with the language an opportunity to expand their knowledge and understanding of Ukrainian culture in the broader context of European society as a whole.

The minor in Ukrainian is a vibrant and multi-faceted program that integrates Ukrainian studies into broader intellectual and policy agendas, while promoting research and scholarly work on contemporary Ukraine in the United States. Its curriculum will educate students on the history,
language, literature, and politics of Ukraine. In addition, study of Ukraine brings an important comparative perspective to international and interdisciplinary studies at the University of Michigan, as the Ukraine has historically been viewed as a meeting place of several major cultures: East Slavic, Jewish, Austro-Hungarian, and others.

This program could be of particular interest to undergraduate students in majors like Judaic Studies, History, the Program in the Environment, Political Science, and Sociology.

Ukraine's highly educated population (seventh in Europe), natural wealth, size (second largest state in Europe), and location in the borderland between Europe and Asia and in between Poland and Russia, make it an important country both regionally and globally. With Ukraine's recent independence, it is an important time to introduce a broader audience the rich legacy of Ukrainian literature, history and culture. Ukraine now occupies a vital but often ambiguous strategic position as an independent country important to the security and stability of all of Europe. Ukraine's changing boundaries over the centuries gives us a completely different view of the culture of the post-Soviet years, and now in the expansion of the EU.

The latest achievements of inner freedom and the recognition of a diversity of cultures in Ukraine have become the main means for fostering research and academic contacts between Ukraine and the U.S. Ukraine is engaged in the global processes of state building, creation of a market economy, and social changes. Ukraine's democratic "Orange Revolution" has led to closer cooperation and more open dialogue between Ukraine and the United States.

The EU is seeking an increasingly close relationship with Ukraine, going beyond co-operation, to gradual economic integration and a deepening of political co-operation. NATO and the Ukraine actively cooperate in international peace-support operations and have developed practical cooperation in a wide range of other areas. In May 2008 Ukraine became a member of the World Trade Organization and has since engaged in negotiations for the establishment of a deep and comprehensive Free Trade Area.

Prerequisites to the Minor. UKR 251 (with a grade of " $C$ " or better) or equivalent as determined by the Departmental placement examination.

Minor Program. At least 16 credits of courses including:
UKR 252
2. 12 credits in courses selected from the following two categories, with at least 6 credits from Category A.

## Category A. Ukrainian Language, Literature, and Culture:

- UKR 351 ( $3^{\text {rd }}$ Year Ukrainian I)
- UKR 352 (3 ${ }^{\text {rd }}$ Year Ukrainian II)
- UKR 421 (Directed Readings in Ukrainian Literature)
- SLAVIC 490 (Topic: Introduction to Ukrainian Culture)
- UKR 320 (Introduction to Ukrainian Poetry)

Category B. Eastern European Slavic Culture (No more than 6 credits from this category):

- HISTORY 432 (Medieval and Early Modern Russia)
- SLAVIC 240 (Slavic Folklore)
- SLAVIC 270 (Contact and Conflict: Jewish Experience in Eastern Europe)
- SLAVIC 313 (Russian and Ukrainian Cinema)
- SLAVIC 395 (Survey of Russia: The Russian Empire, the Soviet Union, and the Successor States)
- RUSSIAN 435 (Cultural History of Russian Jews)
- SLAVIC 490 (Topics: Rock Kills Communism; Revolution in the Attic)
- (Up to 3 Credits) Study Abroad, Summer Internships in Ukraine and/or Field Work in Ukrainian Communities of Metro Detroit. The Department offers help in negotiating summer internships with companies in Ukraine or within local Ukrainian communities.


## Social Work

School of Social Work
3833 School of Social Work Building
1080 South University Avenue
(734) 764-5733 (phone)
ssw.umich.edu/programs/undergrad
e-mail: cascminor@umich.edu
The University of Michigan School of Social Work is a community of internationally recognized faculty, gifted students, and dedicated alumni who share a common objective: to create social change and promote social justice through excellence in research, education, and practice. Consistently ranked among the top schools of social work in the nation, the School of Social Work has a master of social work program that is held in the highest regard by educators and professionals in the field.

## Community Action and Social Change (CASC) Minor

Updated Fall 2016-4/13/2016
Students wishing to pursue a minor in Community Action and Social Change should meet with the program's designated advisor. Appointments are scheduled through the School of Social Work CASC Undergraduate Minor Program [email: cascminor@umich.edu or telephone: (734) 7635733], 3833 SSW.

This multidisciplinary minor is a collaboration between the School of Social Work, the College of Literature, Science and the Arts, the Program in American Culture, Psychology, Sociology, and the Program in Intergroup Relations, the Residential College and the Michigan Community Scholars Program.

The CASC minor uses critical structural thinking to engage students in analyzing types, levels and sources of power to better understand how inequities are manifested, maintained and reinforced in society and how these inequities can be addressed through community action and social change efforts. It will extend opportunities for undergraduate students to:

1. examine community action and social change concepts using a multidisciplinary framework;
2. address community action and social change efforts in multilingual and multicultural communities;
3. integrate, using a multidisciplinary framework, social justice values into the community action and social change processes; and
4. engage in service learning opportunities to promote community action or social change.

The courses that comprise this multidisciplinary minor are linked together through a common set of principles. These principles include:

1. Civic engagement is a critical component of undergraduate education.
2. Community engagement, action and social change need to incorporate social justice perspectives.
3. Undergraduate students need the theories and skills to:

- recognize the importance of contexts on individual, group and interpersonal dynamics;
- engage in critical sociopolitical/historical/structural analyses;
- use a multi-level and multidisciplinary structural analysis and perspective;
- acknowledge and address the role of power and privilege in community action and social change efforts; and
- identify goals for community change and the strategies and tactics to work with others towards these goals.

Advising. Students wishing to pursue a minor in Community Action and Social Change should meet with the program's designated advisor. Students may schedule an appointment online or by emailing cascminor@umich.edu.

Prerequisites to the Minor: None for the minor per se, although individual courses elected to meet the requirements of the minor may have course prerequisites.

Minor Program. The minor requires at least 16 credits from the following courses:

## A. Required Core Foundation Course:

SW 305: Theories and Practices for Community Action and Social Change
B. Electives. One course (minimum 3 credits) from each cluster and an additional 3 credits from any cluster

1. Context Cluster Electives (minimum three credits).

These electives provide students with a range of context, theories and multidisciplinary perspectives to support understanding of various community action and social change efforts:

- AAS 303/SOC 303: Race and Ethnic Relations
- AAS 330/RCSSCI 330: Urban and Community Studies 1 (section titled "Historical and Theoretical Perspectives")
- AAS 434/SOC 434: Social Organization of Black Communities
- AMCULT 311: Topics in Ethnic Studies (section titled "Race and Mixed Race")
- AMCULT 348/HISTORY 346: History of American Radicalism
- AMCULT 374/HISTORY 374: The Politics and Culture of the Sixties
- AMCULT 399: Race, Racism and Ethnicity
- AMCULT 421/SOC 423: Social Stratification (section titled "Gender, Sexuality, Disability, and Animal Inequality in America")
- ANTHRCUL 370/LING 370: Language and Discrimination
- ANTHRCUL 447: Culture, Racism and Human Nature
- ASIAN 259/HISTORY 255: Gandhi's India: The History of Modern South Asia
- ENTR 599: Special Topics in Entrepreneurship (section titled "Educational Entrepreneurship")
- ENVIRON 203/ORGSTUDY 203: Activism
- ES 445: Base of the Pyramid - Business Innovations for Solving Society's Problems
- ES 444: Introduction to Microfinance
- GEOG 145/INTLSTD 101/UC 145: Introduction to International Studies
- HISTORY 255/ASIAN 259: Gandhi's India: The History of Modern South Asia
- HISTORY 344/RCSSCI 344: The History of Detroit in the $20^{\text {th }}$ Century
- HISTORY 346/AMCULT 348: History of American Radicalism
- HISTORY 374/AMCULT 374: The Politics and Culture of the Sixties
- INTLSTD 101/GEOG 145/UC 145: Introduction to International Studies
- LING 370/ANTHRCUL 370: Language and Discrimination
- MO 314: Managing Change
- MO 321: Leadership in Organizations
- NURS 420. Introduction to Global Health: Issues and Challenges (effective Fall 2016)
- NURS 421. Perspectives in Global Health: Issues and Challenges (effective Fall 2016)
- ORGSTUDY 203/ENVIRON 203: Activism
- POLSCI 489: Advanced Topics in Contemporary Political Science (section titled "Citizenship and its Modern Challenges")
- PSYCH 498/WOMENSTD 498: Gender and the Individual
- RCHUMS 334. Topics in Humanities, section titled "Latino Theatre and Social Change" [TopicID \#51] (effective Fall 2016)
- RCSSCI 330/AAS 330: Urban and Community Studies 1 (section titled "Historical and Theoretical Perspectives")
- RCSSCI 344/HISTORY 344: The History of Detroit in the $20^{\text {th }}$ Century
- SOC 303/AAS 303: Race and Ethnic Relations
- SOC 345/WOMENSTD 345: Sociology of Sexualities
- SOC 423/AMCULT 421: Social Stratification (section titled "Gender, Sexuality, Disability, and Animal Inequality in America")
- SOC 434/AAS 434: Social Organization of Black Communities
- SOC 447/WOMENSTD 447: Sociology of Gender
- SOC 454: Law and Society
- SOC 458: Sociology of Education
- SOC 461: Social Movements
- SW 300: Leadership in the Nonprofit Sector
- SW 400: Social Problems and Social Work Today
- THTREMUS 333. Documentary Theatre (effective Fall 2016)
- THTREMUS 399. Topics in Drama, section titled "Latino Theatre and Social Change" [TopicID \#114] (effective Fall 2016)
- THTREMUS 533. Documentary Theatre (effective Fall 2016)
- UC 145/INTLSTD 101/GEOG 145: Introduction to International Studies
- WOMENSTD 345/SOC 345: Sociology of Sexualities
- WOMENSTD 447/SOC 447: Sociology of Gender

2. Diversity Learning Cluster Electives (minimum three credits).

These electives provide students with skills and learning opportunities to facilitate diversity learning to support community action and social change efforts:

- AMCULT 321/PSYCH 325: Practicum in the Multicultural Community
- AMCULT 363/WOMENSTD 363: Asian/Pacific American Women
- AMCULT 390: Internship in Arab American Studies,
- EDUC 390/ELI 390/LING 386/RCSSCI 390: Community Service and Language, Education, and Culture
- ELI 390/LING 386/EDUC 390/RCSSCI 390: Community Service and Language, Education, and Culture
- HISTORY 346/AMCULT 348: History of American Radicalism (section titled "From the Abolitionists to the Battle of Seattle")
- LING 386/ELI 390/EDUC 390/RCSSCI 390: Community Service and Language, Education, and Culture
- NURS 477. Cultural Aspects of Health and Illness (effective Fall 2016)
- PSYCH 122/UC 122/SOC 122: Intergroup Dialogues
- PSYCH 310/UC 320/SOC 320: Processes of Intergroup Dialogues Facilitation
- PSYCH 311/UC 321/SOC 321: Practicum in Facilitating Intergroup Dialogues
- PSYCH 312/UC 375/SOC 375: Intergroup Conflict and Coexistence: Religion, Ethnicity and Culture
- PSYCH 324/SOC 324/UC 324: Advanced Practicum in Intergroup Relations
- PSYCH 325/AMCULT 321: Practicum in the Multicultural Community
- RCCORE 409: Study Off-Campus (section titled "Political Struggles in Mexico: Seminar and Field Study
- RCSSCI 360: Social Science Junior Seminar (section titled "Political Struggles in Mexico: Seminar and Field Study")
- RCSSCI 390/ELI 390/LING 386/EDUC 390: Community Service and Language, Education, and Culture
- SOC 122/UC 122/PSYCH 122: Intergroup Dialogues
- SOC 218/UC 218: Foundations of Intergroup Relations
- SOC 320/UC 320/PSYCH 310: Processes of Intergroup Dialogues Facilitation
- SOC 321/UC 321/PSYCH 311: Practicum in Facilitating Intergroup Dialogues
- SOC 324/PSYCH 324/UC 324: Advanced Practicum in Intergroup Relations
- SOC 375/UC 375/PSYCH 312: Intergroup Conflict and Coexistence: Religion, Ethnicity and Culture
- UC 122/PSYCH 122/SOC 122: Intergroup Dialogues
- UC 218/SOC 218: Foundations of Intergroup Relations
- UC 320/PSYCH 310/SOC 320: Processes of Intergroup Dialogues Facilitation
- UC 321/PSYCH 311/SOC 321: Practicum in Facilitating Intergroup Dialogues
- UC 324/SOC 324/PSYCH 324: Advanced Practicum in Intergroup Relations
- UC 370: UC Special Topics (section titled "Intergroup Conflict \& Coexistence: Religion, Ethnicity \& Culture")
- UC 375/PSYCH 312/SOC 375: Intergroup Conflict and Coexistence: Religion, Ethnicity and Culture
- UC 470: UC Special Topics (section titled "Social Justice in the Real World"
- WOMENSTD 363/AMCULT 363: Asian/Pacific American Women
- WOMENSTD 420: Group Facilitation in Women's Studies
- WOMENSTD 443/AAS 443: Pedagogy of Empowerment: Activism in Race, Gender and Health

3. Action Service Learning Cluster Electives (minimum 3 credits).

These electives provide students with opportunities to engage in service learning opportunities to promote community action and social change initiatives:

- AMCULT 301: Topics in American Culture (section titled "The Cody High School Project")
- AMCULT 305: Asian Pacific American Community Service and Learning
- AMCULT 306/PSYCH 317: Community Research
- AMCULT 319/PSYCH 319: Empowering Families and Communities
- AMCULT 321/PSYCH 325: Practicum in Multicultural Community
- AMCULT 390: Internship Opportunities in Arab American Studies
- ARTDES 311. Detroit Connections (effective Fall 2016)
- ARTDES 312: Art Workshops in Prisons
- ARTDES 314: Change by Design
- EDUC 360: Partners is Authentic Learning in School
- EDUC 390/ELI 390/LING 386/RCSSCI 390: Community Service and Language, Education and Culture
- ELI 390/LING 386/EDUC 390/RCSSCI 390: Community Service and Language, Education and Culture
- ENGLISH 310: Discourse and Society
- ENGLISH 319: Literature and Social Change (section titled "Theater and Social Change")
- ENGLISH 326: Community Writing and Public Cultures (section titled "The Portfolio Project)
- ENGR 355 \& 455: Multidisciplinary Engineering Design I \& II (section titled "Engaged Urban Design") [students must participate in both semesters]
- ENTR 390: Special Topics in Entrepreneurship (section titled "Leading Innovation through Social Entrepreneurship")
- LING 386/ELI 390/EDUC 390/RCSSCI 390: Community Service and Language, Education and Culture
- POLSCI 389: Topics in Contemporary Political Science (section titled "Theory and Practice of Community Organizing")
- PSYCH 211 (excluding any sections about career exploration)
- PSYCH 306: Project Outreach Group Leading
- PSYCH 317/AMCULT 306: Community Research
- PSYCH 319/AMCULT 319: Empowering Families and Communities
- PSYCH 325/AMCULT 321: Practicum in Multicultural Community
- RCHUMS 334: Topics in Humanities (sections titled "Community Empowerment Through the Arts: An Introduction to Theory and Practice" and "The Atonement Project" [TopicID \#33])
- RCSSCI 390/ELI 390/LING 386/EDUC 390: Community Service and Language, Education and Culture
- SOC 325: The Sociology of Service Learning
- SOC 389: Project Community (all sections)
- SOC 489: Organizing: People, Power and Social Change
- THTREMUS 334. The Atonement Project (effective Fall 2016) (or prior to Fall 2016 THTREMUS 399: Topics in Drama, section titled "The Atonement Project" TopicID \#65)
- THTREMUS 335. Theatre and Incarceration (effective Fall 2016)
- THTREMUS 336. PCAP Brazil Exchange (effective Fall 2016)
- THTREMUS 534. The Atonement Project (effective Fall 2016)
- THTREMUS 535. Theatre and Incarceration (effective Fall 2016)
- THTREMUS 536. PCAP Brazil Exchange (effective Fall 2016)
- WOMENSTD 350: Nonprofit Management, Community Engagement, and Feminist Practice

The School of Social Work will also offer one credit mini-courses that are led by community leaders and social work faculty that will provide students additional elective opportunities linked to the core cluster areas.

## C. Capstone.

SW 401: Community Action and Social Change Capstone.
When students have completed the core course and electives, a capstone one credit community action and social change experience will complete the minor requirements. This involves students in the minor
working closely with social work faculty advisors or other steering committee members to engage in integrative learning tasks to support e-portfolio development and further service learning opportunities.

## Preferred Admission for Community Action Social Change Minor

 Students who are completing a Community Action and Social Change minor may apply to the Office of Student Services in the School of Social Work for the Preferred Admission Program leading to a Master of Social Work (MSW) during the fall of their junior year.http://ssw.umich.edu/offices/casc-undergraduate-minor/preferredadmissions

# Sociology 

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500 South State Street
(734) 764-6324 (phone)
(734) 763-6887 (fax)
www.lsa.umich.edu/soc
e-mail: sociology.department@umich.edu
Sociology is about people and their patterns; it seeks to understand and account for the complexities of human interaction and patterns of social life. It focuses on relations among people, groups, organizations, classes, cultures, and society. Sociology scientifically explores and analyzes issues vital to our personal lives, our communities, our society, and the world. In short, it involves all aspects of human experience and activity. Almost any aspect of how human beings gather together in groups, organizations, and societies can be studied within sociology. The study of sociology provides fascinating and distinctive perspectives on the social world. The field also offers a range of research techniques that can be applied to virtually any aspect of social life: crime and delinquency, family dynamics, corporate downsizing, how people express emotions, welfare or education reform, or global issues of peace and war. Because sociology addresses the most challenging issues of our time, it is a rapidly expanding field with broad implications. Students interested in learning more about the sociology major plan or intending to declare a major in sociology should attend an information meeting for prospective majors on one of the dates posted on the department's website.

Advising. A department advisor is available to students for one-on-one appointments to discuss the choice of sociology as a major, assist in course selection, and advise on co-curricular opportunities and career preparation. Students can schedule a major advising appointment by calling the department at (734) 764-6324 or using the online appointment scheduler at www.lsa.umich.edu/soc. Students can also email socadvisor@umich.edu with questions.

## Sociology

May be elected as a departmental major
Updated 3/21/2016 Effective Fall 2016
A major in sociology allows for a wide range of possible course elections, enabling students to create a personalized curriculum that matches their intellectual and career interests. The requirements for the major offer students a foundation in fundamental sociological principles, practices, theories, and methodology. Flexible electives allow students to study the discipline broadly or to focus on a specific area of the discipline that inspires them.

Prerequisite to the Major. Students planning to concentrate in sociology must elect and complete with a C- or better one of the following introductory courses before declaring the major: SOC 100, 102, 195, 300, or 302 (effective Fall 2016). SOC 195 is restricted to first- and second-year students who are in the LSA Honors Program and/or have a GPA of 3.2 or higher. Juniors and seniors electing an introductory course are strongly encouraged to elect SOC 300, although there is limited space available for seniors in SOC 100 and 102 in academic terms in which SOC 300 is not offered. The prerequisite course cannot be included in the 33 credits required for completion of the major.

Students must earn at least a C-in the prerequisite for the major and in all courses they plan to include in the major. Courses elected as pass/fail may not be included in the major.

Requirements for the Major. After electing one of the introductory prerequisite courses, majors are required to complete at least 33 credits of SOC coursework at the 200 level or above, including:

1. Statistics: SOC 210 or STATS 250 (or their equivalent)
2. Research Methods: SOC 310 (Must be taken on the UM-Ann Arbor campus
3. Sociological Theory: SOC 305 (Must be taken on the UM-Ann Arbor campus

The remaining credits must come from SOC courses at the 200 level and above. Students who wish to focus their elective coursework on a particular area of sociology are encouraged to consult with the department advisor.

The department will allow up to two courses with significant sociological content from other LSA departments or transfer institutions to be included in the major. Students interested in petitioning to include a non-SOC course in their major should email their request to socadvisor@umich.edu and include a complete course syllabus.

The department expects that at least 18 of the 33 credits required for a sociology major be completed with Department of Sociology faculty on the UM-Ann Arbor campus. The research methods and sociological theory courses must be taken in residence on the UM-Ann Arbor campus.

Course Planning. The research methods and statistics courses facilitate the understanding of sociological themes and concepts explored in upperdivision courses. Students are strongly encouraged to complete the statistics course in the sophomore year, the research methods course before the end of the junior year, and complete all three of the required courses before the final academic term of the senior year. Students intending to write an Honors thesis in sociology must take statistics before the first term of the junior year and the methods course no later than the second term of the junior year.

Credit Limits and Exclusions. A combined total of eight INDEPENDENT or EXPERIENTIAL credits may be included in the major. This includes SOC 225 (and 389), 321, 324, 394, 395, and 396. There is an additional limit on SOC 225 (and 389) credits; only four credits of SOC 225 (and 389) may be included in the major.

## Law, Justice, and Social Change submajor

Updated 3/21/2016 Effective Fall 2016
Students have the option of adding a subplan in "Law, Justice, and Social Change" to their Sociology major. Courses in Law, Justice, and Social Change submajor emphasize the ways in which legal and other social institutions reproduce and exacerbate social inequalities, and the capacity of social groups to challenge such institutions in ways that produce fundamental social change. A wide range of courses will explore how we understand the concepts of justice and apply it and will develop knowledge in criminology, law, social movements, human rights.

Requirements. To have a notation of the submajor appear on your transcript, you must successfully complete a minimum of 12 credits from the following list:

- SOC 204 (effective Fall 2016), 270, 350, 354, 368, 461, 465, 476, 489
- appropriate topics in SOC 295, 495
- approved undergraduate research in SOC 394 (effective Fall 2016)
- approved independent studies in SOC 395
- approved internships in SOC 396 (effective Fall 2016)
- criminal justice settings of SOC 225 (or 389)

A maximum of 6 credits for the subplan may come from Experiential Learning or Independent Study style courses.

## Honors Plan in Sociology

The Honors Program begins with SOC 497 ( 3 credits) in the second term of the junior year and continues through the senior year with SOC 498 (3 credits) and 499 ( 3 credits). During SOC 498 and 499, students work with the supervision of their faculty mentors, while continuing to meet
individually with the faculty Honors coordinator. SOC 497 is offered in the Winter Term only.

Honors Application Prerequisites and Course Planning. Applicants to the Honors plan in Sociology have at least a 3.5 GPA within their sociology courses and at least a 3.4 cumulative GPA. In addition, they already will have demonstrated originality in their own course work, shown a serious interest in scholarly research, and given evidence of their ability to work independently on a thesis. Students should plan on completing SOC 210 or STATS 250 (or 350) prior to enrolling in SOC 497 and should take SOC 310 or 312 prior to or concurrently with it. The Honors Program in Sociology is a three-term sequence of course and thesis work. Students typically apply as first-term juniors and begin with the first course, SOC 497, the following academic term.

To graduate with Honors, students must meet all requirements for the major; complete SOC 497, 498, and 499; write an acceptable Honors thesis; and maintain a 3.4 overall GPA. Upon completion of this course work and dependent upon the evaluation of the thesis, the academic record and diploma will designate the degree awarded "with Honors," "with High Honors," or "with Highest Honors."

More information about the Honors plan in Sociology is at www.Isa.umich.edu/soc/undergraduateprogram/honorsprogram.
Interested students are encouraged to make an appointment with the department advisor by calling the department at (734) 764-6324 or using the online appointment scheduler at:
www.lsa.umich.edu/soc.

## Sociology Minors

Students wishing to pursue a minor in Law, Justice, and Social change must develop a specific plan for its completion in consultation with the department advisors. Appointments are scheduled online at:
www.Isa.umich.edu/soc/undergraduate/advisingandprogrampolicies

## Law, Justice, and Social Change Minor

A minor in Law, Justice, and Social Change is not open to those electing a minor in Crime and Justice (Residential College). Students electing the Law, Justice, and Social Change minor may not declare a minor in History of Law and Policy.

Sociology has long served students interested in sociology; some of these students have deep interests in law, justice, and social change and advocacy. This minor offers those students a coherent curriculum that emphasizes the ways in which legal and other social institutions reproduce and exacerbate social inequalities, and the capacity of social groups to challenge such institutions in ways that produce fundamental social change. Students may select from a wide range of courses in which they will explore knowledge in criminology, law, social movements, and human rights.

This minor is intended for those students who have interests in law and/or social change, and for non-majors who are eager for the perspective that sociology brings to their understanding of law and justice. It offers students:

- An understanding of theoretical perspectives on justice and on the connections between law and society.
- Frameworks for thinking about legal compliance, deviance, and resistance.
- Perspectives for thinking about the relationship between "law on the books" and "law in actions".
- Tools for thinking about the relationship between law and social change.
- What it means to "use" law in contexts outside the courtroom including in families, neighborhoods, workplaces, social movements, mass media, prisons, and health care settings.
- Understandings of the law in international contexts and in regard to human rights issues.
- The foundation of theory, methods, and substantive knowledge necessary to develop informed perspectives on criminality, crime policy, and the social consequences of legal punishment.

Prerequisites to the Minor: One of SOC 100, 102, 195 or 300.
Students must earn at least a C- or better in the prerequisites to the minor and in all courses they plan to include in the minor. Courses elected pass/fail may not be included in the minor.

Requirements for the Minor. A minimum of 15 credits from any combination of the courses listed below.

Students must earn at least a C- or better in the prerequisites to the minor and in all courses they plan to include in the minor.

- SOC 204 - International Migration and the Politics of Membership in a Globalizing World
- SOC 270 / WOMENSTD 270 - Gender and the Law
- SOC 350 - Human Rights in the United Nations
- SOC 368 - Criminology
- SOC 354 - Law and Society
- SOC 461 - Social Movements
- SOC 465 / PSYCH 488 / WOMENSTD 465 - Sociological Analysis of Deviance
- SOC 476 - Sociology of Bioethics
- SOC 489 - Community Organizing and Social Change
- SOC 225 (or 389)* - Practicum in Sociology (Project Community at a criminal justice site)
Students may also include the following courses with appropriate topics as approved by the department advisor:
- SOC 295 - Topics in Sociology
- SOC 394 - Undergraduate Research
- SOC 395 - Independent Study
- SOC 396 - Undergraduate Internship
- SOC 495 - Topics in Sociology

The department of Sociology will allow one course with significant sociological content related to Law, Justice, and Social Change from other LSA departments or from transfer institutions to be included in the plan for the minor.

Students interested in petitioning to include a non-SOC course in their minor should email their request to socadvisor@umich.edu and include a complete course syllabus.

## Restrictions:

A maximum of 6 credits in the minor may come from experiential learning or independent study style courses. These include (but are not limited to) SOC 225 (or 389 ) and 395.

## Center for South Asian Studies (CSAS)

1080 South University Avenue, Suite 3603
(734) 764-0448 (phone)
(734) 936-0996 (fax)
www.ii.umich.edu/csas
e-mail: csas@umich.edu
Undergraduates may pursue South Asian Studies through a major or minor in the Department of Asian Language and Cultures.

One of the largest programs devoted to South Asia in the U.S., the Center for South Asian Studies is a U.S. Department of Education National Resource Center, and is a unit of the International Institute within the University of Michigan. The Center is committed to promoting a broader and deeper understanding of South Asia and its peoples, cultures, and histories by providing resources for faculty, students, and the community
to learn and disseminate knowledge about the region. Our goals are to ensure that our students graduate with a greater global perspective and understanding; and to support innovative and advanced faculty research on international issues of major importance to the United States and the world.

The Center for South Asian Studies offers a broad, interdisciplinary approach to the study of South Asia at the Master's and Graduate Certificate levels. Undergraduates may pursue South Asian Studies through a major or minor in the Department of Asian Language and Cultures. In addition to the courses offered by the Center, students can find courses on South Asia offered by the various disciplinary departments, such as History, Anthropology, Political Science, etc. The Center posts a complete South Asia area course list on its web site each term.

## Center for Southeast Asian Studies (CSEAS)

1080 South University Avenue, Suite 3603
(734) 764-0352 (phone)
(734) 936-0996 (fax)
www.ii.umich.edu/cseas
e-mail: cseas@umich.edu
Undergraduates may pursue Southeast Asian Studies through a major or minor in the Department of Asian Language and Cultures.

Southeast Asia is one of the world's most dynamic and interesting regions, and the University of Michigan is one of the best places to study Southeast Asia in the world.

The Center for Southeast Asian Studies is a U.S. Department of Education National Resource Center, and is a unit of the International Institute within the University of Michigan. The Center is committed to promoting a broader and deeper understanding of Southeast Asia and its peoples, cultures, and histories by providing resources for faculty, students and the community to learn and disseminate knowledge about the region.

The Center for Southeast Asian Studies offers a broad, interdisciplinary approach to the study of Southeast Asia at the Master's and Graduate Certificate level. Undergraduates may pursue Southeast Asian Studies through a major or minor in the Department of Asian Language and Cultures. In addition to the courses offered by the Center, students can find courses on Southeast Asia offered by the various disciplinary departments, such as History, Anthropology, Political Science, etc. The Center posts a complete Southeast Asia area course list on its web site each term.

Drawing on over 100 years of engagement with the region, every year Michigan offers a wide range of courses, student clubs and events focusing on Southeast Asia. Whether you want to take a course on the region, travel to the Philippines, Indonesia, Singapore, Thailand or Vietnam with faculty members, or study abroad for a semester, you can discover more about this fascinating part of the world while you're here at Michigan.
ii.umich.edu/cseas/academics/languageprograms\#summerlanguageprogra ms

## Statistics

311 West Hall
1085 South University Avenue
(734) 764-5981 (phone)
(734) 763-4676 (fax)
e-mail: stat-um@umich.edu
Isa.umich.edu/stats
The field of Statistics offers a variety of exciting career opportunities. Statistics deals with methods for the collection, visualization, modeling and analysis of data. Massive amounts of data are now routinely collected in business, health, environment, engineering and social sciences. Statistics is the science that transforms these data into information that is critical for decision making. Statistics has always played a major role in marketing, public policy, social and health sciences through the design and analysis of surveys. More recently, statistical methods have been an important part of advances in medicine and engineering such as genetics, tomography, speech recognition, computational vision, and so on. Statistics is a vibrant field that is embarking on an even more exciting journey as we move ahead to the data-rich, information era of the $21^{\text {st }}$ century. We invite you to be join us on this journey and share in the excitement!

The Department of Statistics offers an undergraduate major in Statistics that consists of courses in applied and theoretical statistics, mathematics and computer science. Two undergraduate minor programs are also available: Applied Statistics and Statistics minors. The department also is the administrative home of the interdepartmental program in Informatics.

Advising. Normally, most statistics courses are elected after an introductory mathematics sequence has been completed or after consulting a department undergraduate advisor.

Students wishing to pursue a minor in Statistics must develop a specific plan for its completion in consultation with a Statistics Department undergraduate department advisor.

Computing is central to current statistical practice, both in and beyond universities. Modern statistical techniques often lend themselves to being understood in terms of algorithms and computation. Accordingly, instructors of courses serving statistics minors are increasingly integrating computation and algorithms into their instruction. We expect students to undertake the computing requirement prior to declaring a minor in the department.

See Department website for contact information:
www.lsa.umich.edu/stats/undergraduate/advising

## Informatics

## May be elected as an interdepartmental major

Informatics is an interdepartmental program combining study in the College of Literature, Science, and the Arts, the College of Engineering, and the School of Information. Informatics students select one of five tracks relating to information processing and analysis. The Data Mining and Information Analysis track of the Informatics Program focuses on quantitative data analysis using statistical, mathematical, and computational techniques. Other tracks allow students to focus on social aspects of information processing, on computing and systems infrastructure, or on applications of informatics to specific areas.

The Informatics major is administered by the Department of Statistics. Informatics majors may not use any STATS courses toward the LSA Area Distribution requirement. Students interested in the Informatics major should consult the "Informatics" section of the Academic and Requirements website.

## Statistics

May be elected as a departmental major

## Updated 12/14/2015 - Fall 2016

The major prepares students for careers in industry and government as well as for graduate programs in statistics and quantitative fields. It emphasizes critical thinking and problem solving skills in data analysis and empirical research. The major includes a core set of courses in applied statistics, statistical theory, and computational statistics. Elective courses cover specific classes of statistical techniques, or focus on research areas where statistical analysis plays a major role. Statistics majors learn to apply the skills they learn to diverse application areas including medicine, finance, public policy, and information technology. Students can tailor their electives to prepare themselves for appropriate graduate programs.

## Prerequisites to the Major.

- MATH 215 and 217 (MATH 417 may not be substituted for MATH 217)
- EECS 182 (preferred) or EECS 183
- STATS 250 or 412

Requirements for the Major. The Statistics major consists of at least 26 credits, and must include the following:

1. Core Statistics courses: STATS 413 [effective Fall 2016], 425, 426.
2. Core Computing course: STATS 406.
3. Additional Statistics courses: At least one of STATS 415, 430, 470, or 480.
4. Capstone Course: STATS 485.
5. Elective courses in Statistics, Mathematics, or EECS. These are advisor approved electives. The approved courses include:

- STATS 404, 408, 449
- any 500+ level Statistics courses
- any additional courses from \#3 above
- 400+ level advisor-approved MATH courses (except MATH 417 and 419)
- 300+ level advisor-approved EECS course.

Students interested in the application of statistics to various disciplines such as economics, biological sciences, and psychology are also encouraged to take courses in these areas.

Honors Plan. Any student who has maintained an overall grade point average of at least 3.4 through the sophomore year may apply for admission to the Honors plan program. Such application is made through a Statistics Department undergraduate department advisor. Students in the Honors program must complete the regular major above with the following modifications: MATH 451 and an overall GPA of at least 3.5. In addition, Honors majors must elect the Senior Honors Seminar (STATS 499) and complete a project under the direction of a member of the faculty. This additional requirement should be arranged and discussed with a Statistics Department undergraduate department advisor.

## Statistics Minors

## Applied Statistics

The Applied Statistics minor is not open to students with a Statistics major or any other minor in Statistics.
The Applied Statistics minor program is designed to introduce students to applied statistical methodology. The minor will provide students with an appreciation for the tools that enable them to be involved in the design and analysis of quantitative studies as part of their professional careers or for pursuing graduate studies in applied fields.

## Prerequisites to the Minor

1. MATH 115
2. One of: EECS 183 or 285 , or SI 106 , or ENGR 101

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following categories as stated:

1. Core Courses: STATS 250 (or 350) and 401
2. Elective Statistics Courses. At least three of the following courses: STATS 403, 408, 449, 470, 480. Advanced Statistics courses may be included with prior approval of a Statistics Department undergraduate department advisor.

Constraints. The following courses may not be used as electives for the Applied Statistics minor: STATS 400, 404, 412, 489, 499.

## Statistics

The Statistics minor is not open to students with a Statistics major or any other minor in Statistics.

The Statistics minor program is designed to equip students with a general introduction to probability and statistics. It allows a broad selection of classes to suit both general and specific interests.

## Prerequisites to the Minor

1. MATH 215
2. One of: EECS 183 or $\mathbf{2 8 5}$, or SI 106, or ENGR 101

Requirements for the Minor: At least 15 credits of courses, to be chosen from the following categories as stated:

1. Core Courses: STATS 250 (or 350) and 425, or STATS 412 and 425.
2. Elective Statistics Courses. At least three additional 400-level STATS courses to bring the credit total to 15 , chosen in consultation with, and approved by, a Statistics Department undergraduate department advisor.

Constraints. The following courses may not be used as electives for the Statistics minor: STATS 400, 404, 412, 489, 499.

# Gayle Morris Sweetland Center for Writing 

1310 North Quad
105 South State Street
(734) 764-0429 (phone)
(734) 763-9148 (fax)
www.lsa.umich.edu/sweetland
e-mail: sweetlandinfo@umich.edu
At the University of Michigan, writing plays a critical role in students' thinking and learning, beginning with the first year and continuing into advanced writing in the disciplines. Students' ability to write prose characterized by analytic complexity, clarity, appropriate organization and development of ideas, effective use of evidence, cogency, and rhetorical awareness is crucial to their success both during their undergraduate years and beyond.

The Sweetland Center for Writing exists to support student writing at all levels and in all forms and modes, including writing from multilingual and international undergraduate student writers. To accomplish this mission, Sweetland:

- helps students choose their first writing course;
- approves courses to satisfy the First-Year Writing Requirement;
- approves courses from other institutions that satisfy the First-Year Writing Requirement for transfer students;
- approves courses to satisfy the Upper-Level Writing Requirement;
- operates a Writing Workshop for both undergraduate and graduate students;
- operates a Writing Workshop for undergraduate international and multilingual students;
- operates four Peer Tutoring Centers, the Synchronous Online Writing Lab (SyncOWL) and the Online Writing Lab (OWL) for undergraduates;
- trains undergraduates to become Peer Tutors in WRITING 300: Seminar in Peer Tutoring and WRITING 301: Directed Peer Tutoring;
- teaches
o WRITING 100: Transition to College Writing
o WRITING 120: College Writing for Multilingual Writers
o WRITING 200: New Media Writing
o WRITING 201: New Media Writing Mini Course
o WRITING 220: Introduction to the Minor in Writing
o WRITING 240: Academic Communication for Multilingual Students
o WRITING 302: Global Communication: Rhetorical Approaches to Multilingual Conversation
o WRITING 340: Disciplinary Writing for Multilingual Students: Vocabulary and Grammar in Context
o WRITING 350: Excelling in Upper-Level Writing
o WRITING 400: Advanced Rhetoric and Research
o WRITING 410: Quantitative Analysis and Writing in the Disciplines
o WRITING 420: Minor in Writing Capstone
o WRITING 430: The Teaching of Writing
o WRITING 630: Advanced Writing for Graduate Students
o WRITING 993: Teaching Writing in the Disciplines
- offers the Minor in Writing
- sponsors first-year and upper-level writing prizes.

Writing Support for Students, including International and Multilingual Undergraduates
The Sweetland Center for Writing aims to help writers become more confident, skilled, and knowledgeable about writing and the subjects they write about. Sweetland faculty and peer tutors supplement formal writing instruction with one-to-one consultations in the Writing Workshop, Peer Tutoring Centers, Online Writing Lab (OWL), and Synchronous Online Writing Lab (SyncOWL).

Writing Workshop. Writing Workshop, held in 1310 North Quad, offers free half-hour one-to-one consultations with Sweetland writing instructors for students who want feedback on their writing. Make an appointment on our website, www.lsa.umich.edu/sweetland.

Peer Tutoring. The Sweetland Center for Writing also operates four Peer Tutoring Centers located in G219 Angell Hall, 1136 Shapiro Undergraduate Library, 1059 Alice Lloyd Hall, and 2322 Bursley Hall on North Campus where students can get writing help on a walk-in basis from Sweetlandtrained undergraduates.

Synchronous Online Writing Lab (SyncOWL) and Online Writing Lab (OWL). Peer Tutors also provide feedback on writing online in real-time via SyncOWL and within 72 hours for papers submitted to the OWL.
sitemaker.umich.edu/sweetlandwritinghelp/home

## Minor in Writing

11/14/2015 - Effective Winter 2016
text replaced entirely Winter 2016-1/20/2016
2/11/2016 - Winter 2016
The Minor in Writing is designed for all UM undergraduates who are interested in developing their disciplinary and professional writing abilities while pursuing concentrations across the liberal arts and sciences.

## Prerequisites to the Minor

- Students must have completed their First-Year Writing Requirement with a grade of C or higher. Engineering students must have completed Engineering 100 with a grade of C or higher. Transfer students can complete the FYWR with a transfer course approved by Sweetland.
- Students must have at least three full terms remaining in their academic program.
- Students must be able to enroll in WRITING 220: Introduction to the Minor in their first semester in the Minor.

Requirements for the Minor. At least 15 credits of courses. Students must complete the following courses, with an average minimum GPA of 3.3 for courses applied toward the minor:

1. WRITING 220: Intro to the Minor in Writing - gateway course, which must be taken in the students first full semester after being accepted into the minor.
2. One of the following courses:

- ENGLISH 225: Academic Argumentation
- ENGLISH 229: Professional Writing
- ENGLISH 325: Art of the Essay
- LHSP 230. Writing and the Arts II
- WRITING 200: New Media Writing

3. One Upper-Level Writing Requirement course in the major, which may also satisfy a requirement for the major (3-4)
4. One additional Upper-Level Writing Requirement course which cannot satisfy a requirement for the major (3-4)
5. WRITING 420: Minor in Writing Capstone - capstone course

Applications will be considered twice a year, in March and October. Students must apply to and be accepted by the Sweetland Center for Writing in order to declare the Minor in Writing.

Advising. Students will develop their initial course plans for the minor in Writing within the context of the gateway course (WRITING 220). Ongoing advising regarding course selection for the minor will be handled by Sweetland lecturers. Students will complete their electronics portfolio within the context of the capstone course (WRITING 420). Ongoing advising regarding progress-to-degree will be handled by Sweetland's student services staff using the student online file and degree audit.

General questions about the minor should be sent to sweetlandwritingminor@umich.edu. To schedule an appointment with an advisor regarding course selection and progress-to-degree, schedule an

SWEETLAND CENTER FOR WRITING/ 203
appointment online by selecting Minor in Wrtg from the drop down menu in Sweetland's scheduling system

## Teacher Education Program

1228 School of Education Building
610 East University Avenue
(734) 615-1528 (phone)
(734) 647-9158 (fax)
www.soe.umich.edu
e-mail: te.program@umich.edu
The U-M School of Education offers undergraduate certification programs in elementary and secondary certification. The undergraduate elementary teacher education program prepares you to teach in:

- Grades K-8, in self-contained classrooms with all subjects
- Grades 6-8, in subject-area classrooms corresponding to your teaching major and/or minor

The secondary teacher education program prepares you to teach in:

- Your teaching major and/or minor in grades 6-12

Elementary Program. Students interested in earning an elementary school teaching certificate transfer to the School of Education, usually at the beginning of the junior year, for both a bachelor's degree and certification.

Secondary Program. Students interested in secondary education can choose to remain in their unit (i.e., LSA) for their BA/BS degree and simultaneously complete certification requirements. Alternatively, secondary students can transfer to the School of Education, usually at the beginning of the junior year, and complete requirements for an education degree with a teaching certificate.

All prospective students are encouraged to discuss their degree and certification interests with advisors in both LSA and the School of Education early in their degree program to ensure that they have a thorough understanding of both degree and teacher certification requirements. Program requirements are subject to change.

Application. Students in all schools and colleges desiring teacher certification must apply to the Teacher Education program. Students must have junior standing (a minimum of 54 credits) at the time of enrollment in the certification program.

The application deadline for fall term admission is January 15. Scholarships are only available to those applying for fall term admission. All elementary applicants must apply for fall term admission.

For secondary applicants only:
Secondary applicants who are ready to begin the program immediately have the option of applying for winter term admission. The application deadline for winter tem admission is October 15. There are no scholarship opportunities for those who apply for winter term admission.

Applications received after the deadline may be considered on a space available basis. All students must obtain the application to the certification program from the Office of Undergraduate Admissions website at: www.admissions.umich.edu/applying

Academic Advising. To schedule an appointment with a School of Education academic advisor, please email soe.advising@umich.edu or call the Teacher Education office at (734) 615-1528. Please provide your name, UMID, phone number, and times you are generally available (for example, Fridays 11 a.m. - 3 p.m.) Advising appointments are available Monday Friday, 9 a.m. - 5 p.m.

Prospective Students: All prospective students are encouraged to discuss their degree and certification interests with advisors in both LSA and the School of Education early in their degree program to ensure that they have a thorough understanding of both degree and teacher certification requirements. Program requirements are subject to change.

Current Students: To ensure timely completion of program, teacher certification students are required to complete an audit appointment with a School of Education certification advisor no later than the term of certification completion. The audit appointment will include a complete review of all coursework and other program requirements.

Teacher certification students are also encouraged to meet regularly (at least once a year) with a certification advisor throughout their time in the program.

## LSA Undergraduate Curriculum Support

2242 LSA 1382
500 South State Street
(734) 615-9653 (phone)

## Applied Liberal Arts

The Applied Liberal Arts (ALA) curriculum provides a nondepartmental home for courses on essential skills for college success and other curricular and co-curricular opportunities for first- and secondyear students as they explore majors, minors, internships, and other options for education, leadership, and personal growth. This part of the LSA curriculum is still "under construction." In the semesters to come it will also serve as a trans-departmental space for integrative, multi-disciplinary, and experimental teaching and learning, including the " 22 Ways" courses, specialized Sophomore Seminars, and Critical Issues courses that explore modes of problem-based education. Finally, ALA is a laboratory for new directions in the LSA undergraduate curriculum, especially those that highlight student-led and student-designed initiatives. It will host liberal arts courses that are part of the cross-campus undergraduate Minor in Entrepreneurship and the Social Innovation Challenge sponsored by optiMize.

## University Courses Division

The University Courses Division is a small academic unit that is administered by the LSA Dean's Office and used to house undergraduate courses that do not readily fit under any specific departmental banner. Sponsored by the college rather than by individual departments or programs, these courses may be taught by members of the faculty in any academic unit on the Ann Arbor campus, including colleges outside of LSA. A number of non-LSA course offerings have been approved by the LSA Curriculum Committee for crosslisting in the UC Division, thus allowing LSA students completing those courses to earn LSA credits toward their degree.

The University Courses Division is also the home of courses for Michigan Learning Communities, the Undergraduate Research Opportunity Program,
and other special initiatives in undergraduate education. In addition, the UC Division has been a place where experimental and interdisciplinary courses are developed. After a course has been offered successfully for a few terms, a home is ordinarily found in a traditional academic unit, and the UC listing is dropped.

First-Year Seminars. The Dean's Office administers the FYS Program. The UC Division houses several First-Year Seminars each term (taught by emeriti and non-LSA faculty). These unique low enrollment classes (maximum of 20 students) are open to all first-year students. They are intended to facilitate deeper learning through more active participation and increased opportunities for interaction between student and teacher as well as dialogue among students. Students not only experience a stimulating introduction to the intellectual life of the University through engaging subject matter; some may discover a subject they wish to pursue in further courses. It is hoped that students who take a seminar will find in it a sense of intellectual and social community that will ease the transition to a large university.

All First-Year Seminars can be used to complete part of the College's Area Distribution requirements: Humanities (UC 150); Social Sciences (UC 151); Natural Sciences (UC 152); and Interdisciplinary (UC 154).

Sophomore Year Initiative. The Dean's Office also administers the Sophomore Year Initiative, a set of courses and activities whose goal is to help sophomores map the College curriculum and explore the terrain of the liberal arts. Sophomore Initiative courses focus on the analytical skills and competencies essential to success in any career. They provide discipline-specific and multi-disciplinary investigations of natural science, social science, and humanities approaches to issues, and offer students rich opportunities to discover their intellectual passions while developing mastery in critical thinking and problem solving.

## Women's Studies

1122 Lane Hall, 1290
204 South State Street
(734) 763-2047 (phone)
(734) 647-4943 (fax)
www.Isa.umich.edu/women
wsdoffice@umich.edu
Women's Studies offers students the opportunity to study the systems of gender, politics, and representation that shape women's lives. As a discipline, Women's Studies asks:

- How does being a woman affect one's participation in the family, economy, politics, art, and literature?
- How do language, belief, and visual representation convey meaning about women's and men's status in society?
- How has that status changed historically?
- How does the experience of women vary by class, race, nationality, and sexual orientation?

Questions like these have produced an extensive body of scholarship that puts gender at the center of analysis.

The Women's Studies department is a diverse intellectual community dedicated to excellence through feminist research, teaching, and activism. It seeks to build interdisciplinary collaborations among faculty and students that bridge gender, ethnic, economic, religious, and national divides; create new knowledge about women, gender, race, and sexuality; challenge unequal distributions of power; and improve the lives of all women and men.

Advising. Advising appointments are made online. To make an advising appointment, please see the bottom left hand corner of the Women's Studies website main page:
www.Isa.umich.edu/women.
The Women's Studies department advisors invite students to make an appointment to discuss how specific study abroad options would fit into Women's Studies major and minor requirements.

Minors. Students wishing to pursue a minor in Women's Studies must develop a specific plan for its completion in consultation with the department's designated advisor. Advising appointments are made online. To make an advising appointment, please see the bottom left hand corner of the Women's Studies website main page:
www.Isa.umich.edu/women.

## Women's Studies Major

May be elected as a departmental major Gender and Health majors may not major in Women's Studies

Updated Fall 2016 1/22/2016
Updated Fall 2016 1/27/2016

## Goals of the Major:

1. To provide majors with an understanding of the interdisciplinary scholarship on women, gender, and sexuality, and to train them in interdisciplinary methods.
2. To offer theoretical and practical approaches to feminist thinking across the disciplines.
3. To encourage comparative thinking about coursework that explores the multicultural and global nature of feminist scholarship.
4. To train majors to think analytically by teaching them to read and write critically.
5. To provide supporting skills and context for the study of women through the cognate requirement.
6. To encourage intellectual and academic breadth through the cognate requirement.

Prerequisite to the Major. WOMENSTD 240, completed with a minimum grade of C - or above.

Requirements for the Major. 33 credits (at least 25 must be at the 300level or above) distributed as follows:

1. Courses in Women's Studies: Majors must complete 27 credits in areas A through E below.
A. Feminist Theory: WOMENSTD 330. Feminist Thought.
B. Thematic Areas. One course from each of the following four areas (only one course may be double-counted to meet these four thematic area course requirements):
(1). Lesbian, Gay, Bisexual, Transgender, Queer and Sexuality Studies
(2). Gender, Race, and Ethnicity in the U.S.
(3). Gender in a Global Context
(4). Gender, Culture, and Representation
C. Practice Course. One course chosen from:

WOMENSTD 350. Nonprofit Management, Community Engagement, and Feminist Practice.
WOMENSTD 351. Leading Feminism
WOMENSTD 404 / HS 404. Gender Based Violence: From Theory to Action
WOMENSTD 425. Feminist Practice of Oral History.
SOC 389, Project Community: Gender and Sexuality section
D. Senior Seminar: WOMENSTD 440. Senior Capstone. (must be taken in-residence)
E. Electives: Additional WOMENSTD courses to bring the total credits for the major up to 27 (excluding prerequisites and cognates).
2. Cognates: Two upper-level courses (for a total of six credits), neither in WOMENSTD nor cross-listed, are required. In order to ensure that the interdisciplinary Women's Studies major is complemented by training in a single discipline, these courses will normally be in the same department. Cognate courses should not be courses on women but should provide supporting skills or contexts for the study of women.

All courses in the Women's Studies major must be completed with a C- or above, including the prereq, WOMENSTD 240 Introduction to Women's Studies.

## Areas of the Women's Studies major

LGBTQ (Lesbian, Gay, Bisexual, Transgender, and Queer) and Sexuality Studies offers an interdisciplinary approach to sexuality that includes topics such as religious beliefs, legal codes, medical constructions, and social movements, and recognizes them as historically variable and culturally specific. With the contributions of empirical research, feminist scholarship, and queer theory, courses in this area acquaint students with history of sexuality and understanding the formation of sexual identities and sexuality.

Gender, Race, and Ethnicity in the U.S. examines the intersection of gender, race, and ethnicity in order to consider differences among women and men, as well as the impact of multiple categories of identity on experience and on the formation and contestation of gender itself. Interracial and interethnic relations, the mutual influence of social movements, and racialized genders are also explored. Although the U.S. is the primary focus, consideration of various diasporas encourages analysis of the links between communities across national borders.

Gender, Culture and Representation explores ways in which ideas and meanings about women and gender are produced culturally and historically. It positions students as readers, viewers, and interpreters of cultures and cultural artifacts, especially in the domains of literature, philosophy, the visual and performing arts, mass media (including film), and their histories. Courses might explore a particular historical topic
from a feminist perspective. Others might introduce students to feminist analyses of past and/or contemporary cultural forms and encourage them to consider processes of viewing, writing, and producing knowledge.

Gender in the Global Context offers a comparative cross-cultural perspective on the construction and meaning of gender, race, class, and sexuality. It examines current forces of globalization and empire, the histories of imperialism and colonialism, and postcolonial resistance and theory. Courses decenter the U.S. while placing it in a geopolitical context, including global and transnational feminisms.

Residence Requirement. At least 14 credits of Women's Studies courses must be taken in residence- including WOMENSTD 440 Senior Capstone and not including cognates.

In-residence: Courses elected on the Ann Arbor campus or at off-campus sites directed by Ann Arbor faculty. This includes STDABRD, Camp Davis, Biological Station, Michigan-in-Washington.

Exclusions. A maximum of six Women's Studies independent study credits may be taken, excluding credits for the practicum.

Honors Plan: Summary. The Women's Studies Honors Plan provides an opportunity for majors to complete a comprehensive, original independent project under the guidance of a faculty mentor as the culmination to their undergraduate studies. Students should choose topics on which they have already done some academic study. Those interested in pursuing Honors should begin to consider it in their sophomore year and discuss their interests with a department advisor. Students learn methodology in WOMENSTD 389 (the Junior Honors Seminar) during the winter term of their junior year. The thesis is researched and written in the second term of the student's junior year and in their senior year. The Director of Undergraduate Studies (DUS) serves as the Honors Plan Advisor in Women's Studies. Honors applications are due December 1 of the student's junior year. For more information, please see:

## www.lsa.umich.edu/women/undergraduate/honorsprogram

Eligibility. Women's Studies majors who have maintained an overall GPA of at least 3.4 and a 3.5 GPA in Women's Studies (including the prerequisite) may apply for an Honors plan. Applicants must have completed or plan to complete WOMENSTD 240 (Introduction to Women's Studies) and WOMENSTD 330 (Feminist Thought) by the end of their junior year and applicants must demonstrate both the interest and capacity to carry out the comprehensive independent work required to complete an Honors thesis.

## Gender and Health Major

May be elected as a departmental major
Gender and Health majors may not major in Women's Studies or minor in Gender and Health

Effective Fall 2016 1/22/2016
Update effective Fall 2016 4/6/2016
The major offers a critical, feminist analysis of research, practice, and policies concerning gender and health. Specifically, the major allow students to examine the intersections of social categories, such as gender, race / ethnicity, social class, and sexuality, with conceptualizations of health, healthcare delivery, and health-related policies. Moreover, students, for example, investigate the limits of the biomedical model, apply a feminist lens to the understanding, critique, and construction of health, explore health- related issues within a global and transnational context, grapple with ethical dilemmas in real-world case studies, and critically analyze the impact of power inequalities in specific health-related areas (e.g., the use of medical technologies and treatment of epidemic diseases).

The major offers students a truly interdisciplinary, liberal arts experience with a variety of courses, spanning disciplinary approaches in the humanities and social sciences. It provides students with intellectually
rich, challenging, and suitable academic preparation for a diverse series of jobs and advanced graduate or professional training.

Prerequisites for the Major. WOMENSTD 220 / NURS 220. Perspectives in Women's Health

Requirements for the Major. 33 credits. To complete the major, students must receive a grade of C - or above in all required courses.

## I. Core:

A. Feminist Theory Seminar. One of the following:

- WOMENSTD 330. Feminist Thought
- WOMENSTD 331. Feminist Theoretical Perspectives in Gender and Health
B. The Practicum course requirement is intended to ensure that majors gain exposure to and participate in hands-on research or community service internships in which critical feminist approaches to gender and health are materially relevant. By approval of both the relevant instructor and the WOMENSTD undergraduate office, students may satisfy this requirement with courses that allow them an immersive experience with gender and health related research, service learning, or mentorships focused on gender and health issues.

Three courses that will satisfy the practicum requirement are:

- WOMENSTD 350. Nonprofit Management, Community Engagement, and Feminist Practice
- WOMENSTD 384. Independent Research (by department advisor approval)
Students obtain approval from the instructor and the department advisor to do so via their participation in appropriately focused research or an apprentice-based research project that focuses on gender and health issues.
- WOMENSTD 404 / HS 404. Gender Based Violence: From Theory to Action.
C. Thematic Area Requirements. Complete at least one courses in each of four thematic areas. A course cannot be double counted to meet more than one thematic area requirement.

1. LGBTQ and Sexuality Studies in Health. These courses focus on sexual minority health and the contributions of feminist scholarship and queer theory as applied to the development of sexual identities, understandings of sexual health, and the experiences of LGBTQ people with healthcare delivery, health related policies, and social justice movements, as well as the history of sexuality more generally.

- WOMENSTD 239 / AMCULT 239. Gender, Sexuality, and Health in America
- WOMENSTD 314 / ENGLISH 314. Gender and Sexuality Studies in Literature (section titled "The Culture of AIDS")
- WOMENSTD 394 / PSYCH 394. Sex, Sexuality, and Public Policy
- WOMENSTD 407. Intersexualities
- WOMENSTD 432 Advanced Topics in Gender \& Health, (section titled "Diagnosis, Sex \& Society")
- WOMENSTD 452 / PSYCH 414. Sexuality and Science
- WOMENSTD 494 / PSYCH 494. Adolescent Sexuality
- SOC 495. Topics in Sociology, (section titled "Diagnosis, Sex \& Society")

2. Critical Race and Ethnic Studies in Gender and Health. These courses will rely on a feminist perspective to examine how the intersections of gender, race, and ethnicity (and other salient categories of identity) impact health-related issues (e.g., conceptualizations of disease and well-being, social disparities in health and healthcare seeking, relations between healthcare providers and patients) with a primary focus on the United States.

- WOMENSTD 233 / AMCULT 233. Genes and Society: Comparative and International Perspectives
- WOMENSTD 239 / AMCULT 239. Gender, Sexuality, and Health in America
- WOMENSTD 291 / PSYCH 291. Introduction to Psychology of Women and Gender
- WOMENSTD 343. Special Topics in Gender, Race, and Ethnicity in the U.S. (certain topics)
- WOMENSTD 356 / AMCULT 331 / HISTORY 356. Health in America: Patterns, Experiences, and Inequalities
- WOMENSTD 443 / AAS 443. Pedagogy of Empowerment: Activism in Race, Gender, and Health

3. Gender and Health in Bioscience. These courses present students with knowledge about basic biological processes, pertaining to healthy developmental periods, life transitions, or particular illnesses, in combination with critical feminist examinations about the process of conducting research in the biological sciences and the applications and societal impact of such work.

- WOMENSTD 233 / AMCULT 233. Genes and Society: Comparative and International Perspectives
- WOMENSTD 296 / HISTORY 296 / PSYCH 296. Gender, Sex Differences, and Addiction: Girls Gone Wild
- WOMENSTD 300. Men's Health
- WOMENSTD 400. Women's Reproductive Health
- WOMENSTD 407. Intersexualities
- WOMENSTD 452 / PSYCH 414. Sexuality and Science

4. Gender and Health in Global, Transnational, or Historical Perspectives. In this thematic area, one set of courses offers a comparative cross-cultural perspective on health-related phenomena by relying upon feminist theories and global feminisms to place topics of study in a global, transnational context. Another set of courses provides students with the comparative vision promoted through in-depth understanding of the rich and complex historical background of many current health-related issues.

- WOMENSTD 212 / ANTHRCUL 212 / NURS 225. The Global HIV/AIDS Epidemic
- WOMENSTD 233 / AMCULT 233. Genes and Society: Comparative and International Perspectives
- WOMENSTD 239 / AMCULT 239. Gender, Sexuality, and Health in America
- WOMENSTD 242 / AMCULT 242. Gender and Violence in a Global Context
- WOMENSTD 296 / HISTORY 296 / PSYCH 296. Gender, Sex Differences, and Addiction: Girls Gone Wild
- WOMENSTD 307 / ANTHRCUL 327 / RCSSCI 327. Critical Theory in Medicine and Healing
- WOMENSTD 324 / ANTHRCUL 325. Childbirth \& Culture
- WOMENSTD 328 / AAS 328. Women, Agency and Sexual Safety
- WOMENSTD 356 / AMCULT 331 / HISTORY 356. Health in America: Patterns, Experiences, and Inequalities
- WOMENSTD 365 / AAS 365. Global Perspectives on Gender, Health, and Reproduction
- WOMENSTD 432. Advanced Topics in Gender and Health, section titled "Introduction to Global Health
- WOMENSTD 438. Gender, Health, and Well-being in Africa
D. Senior Capstone. WOMENSTD 440 (must be taken in residence). Normally elected the last winter term the student is in residence.
II. Gender and Health Electives. Electives must bring the total number of credits in the major up to 27 (excluding cognates). Select at least two courses.
- Any of the courses in "thematic areas" section
- WOMEN 225 / PSYCH 225. Psychology of Human Sexuality
- WOMENSTD 291 / PSYCH 291. Introduction to the Psychology of Women and Gender
- WOMENSTD 313. Special Topics in Gender and the Humanities (sections titled "Gender, Autobiography and the Medical Body", "Disability Culture")
- WOMENSTD 342. Special Topics in Gender and Health
- WOMENSTD 402. Gender and Health Policy
- WOMENSTD 410. Reproductive Justice: Legal and Ethical Issues
- WOMENSTD 421 / SM 421. Gender and Sport
- WOMENSTD 432. Advanced Topics in Gender and Health (sections titled "Movements for Sexual and Reproductive Justice", "Introduction to Global Health")
- ENGLISH 313. Topics in Literary Studies (section titled "Gender, Autobiography and the Medical Body")
- ENGLISH 317. Literature and Culture (section titled "Disability Culture")
III. Gender, Culture and Representation Requirement. One of the four thematic area courses or one of the elective courses must be a course that addresses "gender, culture and representation" on a health-related topic.
- WOMENSTD 233 / AMCULT 233. Genes and Society: Comparative and International Perspectives
- WOMENSTD 239 / AMCULT 239. Gender, Sexuality, and Health in America
- WOMENSTD 296 / HISTORY 296 / PSYCH 296. Gender, Sex Differences, and Addiction: Girls Gone Wild
- WOMENSTD 313. Special Topics in Gender and the Humanities (sections titled "Gender, Autobiography and the Medical Body", "Disability Culture")
- WOMENSTD 314 / ENGLISH 314. Gender and Sexuality Studies in Literature (section titled "The Culture of AIDS"
- WOMENSTD 356 / AMCULT 331 / HISTORY 356. Health in America: Patterns, Experiences, and Inequalities
- ENGLISH 313. Topics in Literary Studies (section titled "Gender, Autobiography and the Medical Body")
- ENGLISH 317. Literature and Culture (section titled "Disability Culture")
IV. Cognate Requirement. Two courses (for a total of six credits), neither in WOMENSTD nor cross-listed, are required. In order to compliment the interdisciplinary major in Gender and Health with training in a single discipline, students should take six cognate credits within the same discipline. Cognate courses should not be courses on gender and health but should provide supporting skills or contexts for the study of gender and health. Cognates are by Women's Studies advisor approval. A preliminary list of suggested cognate courses follows:
- AMCULT 284 / HISTORY 284. Sickness and Health in Society: 1492 to the Present
- AMCULT 365. AIDS and America
- ANATOMY 541 / PHYSIOL 541 / PSYCH 532. Mammalian Reproductive Physiology
- ANTHRBIO 342 / ANTHRCUL 342. Nature/Culture Now!
- ANTHRCUL 342 / ANTHRBIO 342. Nature/Culture Now!
- ANTHRCUL 354 / HISTART 354. Art, Science, and Technology
- ANTHRCUL 437. The Anthropology of Death, Dying and the Afterlife
- ANTHRCUL 447. Culture, Racism, and Human Nature
- CHEM 210. Structure and Reactivity I
- CHEM 215. Structure and Reactivity II
- HISTART 354 / ANTHRCUL 354. Art, Science, and Technology
- HISTORY 234. History of Medicine in the Western World from the 18th Century to the Present
- HISTORY 284 / AMCULT 284. Sickness and Health in Society: 1492 to the Present
- HISTORY 285 / RCSSCI 275. Science, Technology, Medicine, and Society
- HMP 200 / PUBHLTH 200 / PUBPOL 210. Health and Society: Introduction to Public Health
- PHYSIOL 541 / ANATOMY 541 / PSYCH 532. Mammalian Reproductive Physiology
- PSYCH 337. Hormones and Behavior
- PSYCH 532 / PHYSIOL 541 / ANATOMY 541. Mammalian Reproductive Physiology
- PUBHLTH 200 / HMP 200 / PUBPOL 210. Health and Society: Introduction to Public Health
- PUBHLTH 300. Behavioral and Social Foundations for the Health Professions
- PUBHLTH 305. The Environment and Human Health
- PUBHLTH 350. Global Public Health: Challenges and Transformations
- PUBPOL 210/ PUBHLTH 200 / HMP 200. Health and Society: Introduction to Public Health
- RCSSCI 275 / HISTORY 285. Science, Technology, Medicine, and Society
Constraints. A maximum of six credits of WOMENSTD independent study may be taken towards the major - excluding independent study credits that meet the practicum requirement.

Residency Requirement. For completion of the major, 14 credits of gender and health courses must be taken in residence on the Ann Arbor campus, including WOMENSTD 440: "Senior Capstone" and not including cognates.

Honors Plan. Gender and Health majors who maintain an overall GPA of at least 3.4 through the first term of their junior year and a 3.5 in their Gender and Health courses will be eligible to complete their degree with a Gender and Health Honors designation. Most importantly, Gender and Health majors who wish to pursue an Honors Thesis will have an opportunity to complete a comprehensive, original independent project under the guidance of a Women's Studies faculty member with expertise in topics related to gender and health.
Student elect:

- WOMENSTD 389 Junior Honors Seminar (may also count as an elective)
and the following additional courses:
- WOMENSTD 441. Senior Honors Seminar 1
- WOMENSTD 442. Senior Honors Seminar 2
- WOMENSTD 490. Honors Thesis
- WOMENSTD 491. Honors Thesis


## Women's Studies Minors

## Gender and Health

Updated Winter 2016 12/14/2015
Updated Fall 2016 1/22/2016; 2/3/2016, 3/22/2016

## Gender and Health majors may not minor in Gender and Health

This minor allows students to develop a minor major through courses that focus on gender and health across a variety of disciplinary perspectives. At the same time, this minor is designed to focus students' studies of gender and health from a feminist perspective. The minor provides an opportunity for students to develop their skills in critical analysis as they explore how the social category of gender and conceptualizations of health, health care and health policy intersect.

Coursework on a range of topics allows students to engage critically with the biomedical model of health in order to broaden and deepen their understanding of what constitutes health. Topics explored in this minor include, for example, the relationship between health and inequality, the gendered impacts of violence on men and women, childbirth in society, mental health, and the global AIDS epidemic. In all courses students will be challenged to consider the implications of a critical gender analysis of health for health care delivery, the health care professions, health policy domestically and transnationally, and the meaning of health itself.

## Prerequisites to the Minor: None.

Requirements for the Minor: Five courses totaling at least 15 credits, to be chosen from the following categories as stated:

1. Foundational Course: WOMENSTD 220/NURS 220 (Perspectives in Women's Health)
2. Electives: Four electives from the listing below (at least two courses must be upper-level courses, with at least one at the 400-level). One of these courses must be an upper-level seminar and one must be from a transnational, global, or historical perspective as indicated below. (A single course may satisfy more than one of these requirements.)
WOMENSTD 212. The Global HIV/AIDS Epidemic
WOMENSTD 225. Psychology of Human Sexuality (effective Fall 2016)

WOMENSTD 233. Genes and Society
WOMENSTD 239. Gender, Sexuality, and Health in America
WOMENSTD 242. Gender Violence in a Global Context (effective Winter 2016)
WOMENSTD 291. Introduction to the Psychology of Women and Gender
WOMENSTD 296. Gender, Sex Differences, and Addiction: Girls Gone Wild
WOMENSTD 300. Men's Health
WOMENSTD 307. Critical Theory in Medicine and Healing
WOMENSTD 320. Gender and Mental Health
WOMENSTD 324. Childbirth and Culture
WOMENSTD 328. Women, Agency and Sexual Safety
WOMENSTD 342. Special Topics in Gender and Health
WOMENSTD 350. Women and the Community
WOMENSTD 356. Health in America: Patterns, Experiences,
Inequalities (Fall 2015, retroactive to Winter

## 2015)

WOMENSTD 365. Global Perspectives on Gender, Health, and Reproduction
WOMENSTD 394. Adolescent Sexuality
WOMENSTD 400. Women's Reproductive Health
WOMENSTD 402. Gender and Health Policy
WOMENSTD 404. Gender Based Violence: From Theory to Action
WOMENSTD 405. Pharma, Pills, \& Policy
WOMENSTD 407. Intersexualities
WOMENSTD 410. Reproductive Justice: Legal and Ethical Issues
WOMENSTD 412. Reproductive Health Policy in a Global Context
WOMENSTD 421. Gender and Sport
WOMENSTD 432. Advanced Topics in Gender and Health
WOMENSTD 438. Gender, Health, and Well-Being in Africa
WOMENSTD 443. Pedagogy of Empowerment: Activism in Race, Gender, and Health.
WOMENSTD 452. Sexuality and Science
WOMENSTD 494. Adolescent Sexuality
WOMENSTD 498. Gender and the Individual
WOMENSTD 499. Psychology of Women
Upper-Level Seminars: WOMENSTD 328, 342, 365, 405, 407, 412, 438, 443, 494.

Courses with a transnational, global, historical perspective: WOMENSTD 233 (Winter 2016, retroactive to Fall 2015), 296, 307, 324, 328, 365, 412, 438; AMCULT 233 (Winter 2016, retroactive to Fall 2015),

## Gender, Race, and Nation

Updated Winter 2016 12/14/2015
Updated Fall 2016 3/22/2016
This minor is designed to introduce students to a range of feminist scholarship on the intersection of gender with race and ethnicity and with nation. Courses examine race and ethnicity in contexts that are local, transnational, or both. They analyze the ways in which gender, race, and nation are constituted with and against each other, and how these constructions operate in discourses, institutions, politics, societies, and
individual lives past and present. The minor can be tailored toward an international or domestic emphasis, but topics are likely to include the changing boundaries of race, gender, and nation; differential relations among nations; histories of imperialism, colonialism, and globalization; and postcolonial resistance and theory.

Prerequisites to the Minor: None.
Requirements for the Minor: Five courses totaling at least 15 credits, to be chosen from the following categories as stated:

1. Foundational Course. One course chosen from:

- WOMENSTD 240. Introduction to Women's Studies
- WOMENSTD 250. Gender, Race, \& Nation

2. Feminist Theory. One course chosen from:

- WOMENSTD 330. Feminist Thought
- WOMENSTD 422. Feminist Political Theory
- WOMENSTD 455. Feminist Theory in Anthropology

3. Electives. Three electives ( 9 credits) that focus on gender, race and nation (At least two courses must be upper-level courses, with at least one at the 400-level), chosen from:

WOMENSTD 212. Global HIV/AIDS Epidemic
WOMENSTD 220. Perspectives in Women's Health
WOMENSTD 233. Genes and Society
WOMENSTD 235. Harems to Terrorists: Representing the Modern Middle East in Hollywood Cinema
WOMENSTD 239. Gender, Sexuality, and Health in America
WOMENSTD 242. Gender Violence in a Global Context (effective Winter 2016)
WOMENSTD 243. Latinas in the U.S.
WOMENSTD 270. Gender and the Law
WOMENSTD 291. Introduction to Psychology of Women and Gender (effective Fall 2016)
WOMENSTD 293. $20^{\text {th }}$-Century Writing by Women of Color
WOMENSTD 301. Writing Japanese Women
WOMENSTD 302. Sex and Gender in Japan
WOMENSTD 304. Gender and Immigration
WOMENSTD 306. Women of Color and Feminism
WOMENSTD 307. Critical Theory in Medicine and Healing
WOMENSTD 318. Women, Politics, and Society in India
WOMENSTD 321. Women's Lives in $20^{\text {th }}$-Century China
WOMENSTD 323. Black Feminist Thought and Practice
WOMENSTD 324. Anthropology of Childbirth
WOMENSTD 328. Women, Agency, and Sexual Safety
WOMENSTD 329. Native American Feminism
WOMENSTD 332. Gender and Power in Southeast Asia
WOMENSTD 335. Gender and Globalization
WOMENSTD 336. Black Women in America
WOMENSTD 337. Black Women in the U.S.
WOMENSTD 343. Special Topics in Gender and Ethnicity in the U.S.
WOMENSTD 345. Special Topics in Gender in a Global Context
WOMENSTD 352. Gender, Sexuality, and Power in Pre-Modern China
WOMENSTD 354. Race and Identity in Music
WOMENSTD 356. Health in America: Patterns, Experiences, Inequalities (Fall 2015, retroactive to Winter 2015)

WOMENSTD 357. Feminist Practices in a Global Context
WOMENSTD 360. History of the Family in the U.S.
WOMENSTD 363. Asian Pacific American Women
WOMENSTD 365. Global Perspectives on Gender, Health, and Reproduction
WOMENSTD 366. Sex and Sexuality in U.S. Popular Culture
WOMENSTD 368. Women and War in the Middle East
WOMENSTD 378. Violence Against Women of Color
WOMENSTD 381. Intersections: Fictions and Feminisms of the African Diaspora
WOMENSTD 390. Homophobia in the Black World
WOMENSTD 425. Feminist Practice in Oral History
WOMENSTD 427. African Women

WOMENSTD 433. Advanced Topics in Gender, Race and Ethnicity in the U.S.
WOMENSTD 435. Advanced Topics in Gender in a Global Context WOMENSTD 438. Gender, Health, and Well-Being in Africa
WOMENSTD 443. Pedagogy of Empowerment: Activism in Race, Gender and Health
WOMENSTD 448. Gender and the Family in China
WOMENSTD 471. Gender and Sexuality in Pre-Modern Islam
WOMENSTD 492. Women and Islam
WOMENSTD 496. Gender and Representation in the Modern Middle East.

Students may also include:

- WOMENSTD 240 or 250 (when not taken as a foundation course)
- other special topics WOMENSTD courses on specific racial and ethnic groups approved by the Women's Studies department.


## Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) and Sexuality Studies

Updated Fall 2016 3/22/2016
Updated Winter 2017 4/22/2016
The minor in Lesbian, Gay, Bisexual, Queer, Transgender and Sexuality Studies offers an interdisciplinary approach to sexuality that includes topics such as religious beliefs, legal codes, medical constructions, and social movements, and recognizes them as historically variable and culturally specific. With the contributions of empirical research, feminist scholarship, and queer theory, the minor acquaints students with the history of sexuality and understanding the formation of sexual identities and sexuality.

## Prerequisites to the Minor: None

Requirements for the Minor: Five courses totaling at least 15 credits, to be chosen from the following categories as stated:

1. Foundational Course: WOMENSTD 245 (Introduction to Lesbian, Gay, Bisexual and Transgender Studies) or WOMENSTD 295 (Sexuality in Western Culture).
2. Electives: Four electives ( 12 credits) that focus on LGBT issues. At least two courses must be at the 300 level or above, with at least one at the 400 level.

WOMENSTD 239. Gender, Sexuality, and Health in America
WOMENSTD 245. (when not taken as the foundational course)
WOMENSTD 295. (when not taken as the foundational course)
WOMENSTD 308. Law and the Politics of Sexuality
WOMENSTD 327. History of Sexuality
WOMENSTD 341. Topics in LGBTQ Studies
WOMENSTD 348. Sociology of Sexuality
WOMENSTD 352. Gender, Sexuality, and Power in Pre-Modern China
WOMENSTD 366. Sex and Sexuality in U.S. Popular Culture
WOMENSTD 390. Homophobia in the Black World
WOMENSTD 394. Sex, Sexuality, and Public Policy
WOMENSTD 407. Intersexualities
WOMENSTD 411. Rednecks, Queers, and Country Music: Identity and Social Status in Popular Culture
WOMENSTD 428. Sex Panics in the U.S. and UK
WOMENSTD 429: Sexual Identities and the Media (effective Winter 2017)

WOMENSTD 431. Advanced Topics in LGBTQS Studies
WOMENSTD 446. Sex in the City: Urban Geography and Sexual Locations
WOMENSTD 450. Popular Music, Gender, and Sexuality
WOMENSTD 452. Sexuality and Science
WOMENSTD 465. Sociological Analysis of Deviance
WOMENSTD 470. Gender and Sexuality in India
WOMENSTD 471. Gender and Sexuality in Pre-Modern Islam
WOMENSTD 494. Adolescent Sexuality

Other courses with over half their content devoted to LGBTQ issues may be approved for the minor by the Women's Studies

Undergraduate Committee, and these will be listed on a special section of the Women's Studies web page.

# University of Michigan <br> College of Literature, Science, and the Arts 

## LSA Bulletin, 2016-17

## Course Catalog

This document is an unofficial representation of the information available on the LSA website.
For official and updated information, please view the LSA website: http:///sa.umich.edu/lsa/academics/

## Courses in LSA Afroamerican and African Studies

## Afroamerican \& African Studies (AAS)

AAS 103. First Year Social Science Seminar
Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit. (Cross-Area Courses). May not be included in a major.

AAS 104. First Year Humanities Seminar
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit. (Cross-Area Courses). May not be included in a major.

AAS 111. Introduction to Africa and Its Diaspora
(4). (HU). (R\&E). May not be repeated for credit. May not be included in a DAAS major. F.

AAS 115. Elementary Swahili
(4). May not be repeated for credit. Students with credit for AAS 115 may only elect AAS 117 for 4 credits.

AAS 116. Elementary Swahili II: Language and Culture
AAS 115. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AAS 117.

AAS 125. Elementary African Languages I
(4). May not be repeated for credit. May not repeat the same language at the same level.

AAS 200. Introduction to African Studies
(3). (SS). May not be repeated for credit.

AAS 201. Introduction to Afro-American Studies
(3). (SS). May not be repeated for credit.

AAS 202. Introduction to Afro-Caribbean Studies
(3). (HU). May not be repeated for credit.

AAS 203. Issues in Afro-American Development
AAS 111. (3). (SS). May not be repeated for credit. (African-American Studies). Sp.
AAS 206. Issues in African Studies
AAS 111. (3). May not be repeated for credit. (African Studies).
AAS 208 / HISTART 208. Introduction to African Art
(4). (HU). (R\&E). May not be repeated for credit.

AAS 211. Dynamics of the Black Diaspora
(3). (HU). May not be repeated for credit.

AAS 215. Intermediate Swahili I
AAS 116 or 117. (4). May not be repeated for credit.
AAS 216. Intermediate Swahili II
AAS 215. (4). (Lang Req). May not be repeated for credit.

AAS 224 / HISTART 224. African Visual Cultures: Akan/Kongo/Yoruba
(3). May not be repeated for credit.

AAS 230 / HISTORY 274. Survey of Afro-American History I
AAS 111. (3). (SS). May not be repeated for credit. (African-American Studies).
AAS 231 / HISTORY 275. Survey of Afro-American History, II
AAS 111. (3). (SS). May not be repeated for credit. (African-American Studies).
AAS 236 / AMCULT 226 / HISTORY 226 / LACS 226 / LATINOAM 226. The Latin Tinge: Latin Music in Social Context in Latin America and the U.S.
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
AAS 245 / HISTORY 245. Islam in Africa
Students will receive no credit if previously taken as HISTORY 357, Topic 3 "Islam in Africa". (Prerequisites enforced at registration.) (3-4; 3 in the half-term). (HU). May not be repeated for credit.

AAS 246 / HISTORY 246. Africa to 1850
(4; 3 in the half-term). (SS). May not be repeated for credit.
AAS 247 / HISTORY 247. Modern Africa
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
AAS 248. Crime, Race, and the Law
(3). May not be repeated for credit.

AAS 254. The History and Evolution of Hip Hop Culture
(3). (HU). May not be repeated for credit.

AAS 260. The Political Economy of African Development
(3). (SS). May not be repeated for credit.

AAS 262 / HISTORY 272. The Modern Civil Rights Movement
(4; 3 in the half-term). (R\&E). May not be repeated for credit.
AAS 263. Race, Housing, and Employment
(3). May not be repeated for credit.

AAS 267 / AMCULT 267 / HISTORY 267. Religion in the Making of African America
(3). May not be repeated for credit.

AAS 268. Community Collaborations: Race, Social Justice, and Engaged Learning (3). (SS). May not be repeated for credit.

AAS 271 / ENGLISH 274. Introduction to Afro-American Literature
AAS 111 (CAAS 111). (3; 2 in the half-term). (HU). (R\&E). May not be repeated for credit.
AAS 273 / AMCULT 273. The Southern Novel in Historical Context
(3). (R\&E). May not be repeated for credit.

AAS 290. Selected Topics in Black World Studies
(2). May not be repeated for credit.

AAS 303 / SOC 303. Race and Ethnic Relations
An introductory course in Sociology or AAS 201. (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit. (African-American Studies).

AAS 304 / WOMENSTD 304. Gender and Immigration: Identity, Race, and Place
(3). (SS). May not be repeated for credit.

AAS 315. Advanced Swahili I
AAS 216. (4). May not be repeated for credit.
AAS 316. Advanced Swahili II
AAS 315. (4). May not be repeated for credit.
AAS 322 / ENVIRON 335. Introduction to Environment Politics: Race, Class, and Gender (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit. (Cross-Area Courses).

AAS 323 / HISTORY 388 / WOMENSTD 323. Black Feminist Thought and Practice
(3). May not be repeated for credit.

AAS 324. Dealing with the Past and Doing Justice in Africa: South Africa, Rwanda, Sierra Leone AAS 111 and AAS 200, prior coursework in comparative politics, international relations, or permission of instructor. (3). May not be repeated for credit.

AAS 328 / WOMENSTD 328. Women, Agency and Sexual Safety
One course in WOMENSTD or AAS. (3). May not be repeated for credit.
AAS 330 / RCSSCI 330. Urban and Community Studies I
(4). May not be repeated for credit.

AAS 331 / PSYCH 316. The World of the Black Child
One course in Psychology or Afro-American and African Studies. (3). May not be repeated for credit. (Cross-Area Courses).

AAS 333. Perspectives in Afro-American History
AAS 201. (4; 3 in the half-term). May not be repeated for credit. (African-American Studies). Sp.
AAS 334 / AMCULT 336. Popular Culture in Contemporary Black America
AAS 201. (3). (HU). May not be repeated for credit. (African-American Studies).
AAS 336 / HISTORY 336 / WOMENSTD 336. Black Women in the United States, Part I: From the American Revolution through the Women's Era
AAS 201 (CAAS 201). (3). May not be repeated for credit. No credit granted to those who completed AAS 337 prior to Winter 2012.

AAS 338 / ENGLISH 379. Literature in Afro-American Culture
AAS 201. (3). (HU). May not be repeated for credit. (African-American Studies).

AAS 340 / AMCULT 340. A History of Blacks in American Film
AAS 201. (3). May not be repeated for credit. (African-American Studies). Sp.
AAS 345 / ASIAN 345 / RCSSCI 346. Genocide and Trauma in Southeast Asia, Africa, and Europe in the Twentieth Century
(3). (HU). May not be repeated for credit.

AAS 346 / ENGLISH 389 / HISTORY 362. Literature in African History
(3). (HU). (R\&E). May not be repeated for credit.

AAS 354 / HONORS 354 / RCHUMS 354 / WOMENSTD 354. Race and Identity in Music
(3). (HU). (R\&E). May not be repeated for credit.

AAS 355 / ANTHRCUL 355 / HISTORY 355. Health and Illness in African Worlds
(4; 3 in the half-term). (R\&E). May not be repeated for credit. (African Studies).
AAS 358. Topics in Black World Studies
(3). May be repeated for a maximum of 6 credits.

AAS 359 / POLSCI 359. African Politics
AAS 200. (3-4; 3 in the half-term). May not be repeated for credit.
AAS 360. Afro-American Art
AAS 201. (3). (HU). May not be repeated for credit. (African-American Studies). F.
AAS 361. Comparative Black Art
AAS 360. (3). May not be repeated for credit. (Cross-Area Courses). W.
AAS 362 / HISTART 362. Expressive Cultures of the Black Atlantic: Vision and Time HISTART 208/AAS 208 and upperclass standing. (3). May not be repeated for credit.

AAS 365 / WOMENSTD 365. Global Perspectives on Gender, Health, and Reproduction One course in either Women's Studies or AAS. (3). (SS). May not be repeated for credit.

AAS 366. Music of Africa
(3). May not be repeated for credit.

AAS 368. Conservation \& Development in Cultural Landscapes: Fieldwork in Kenya (4). (EXPERIENTIAL). May not be repeated for credit.

AAS 373. Other Africans: The Cultures of Portuguese-Speaking Africa
(3). (HU). May not be repeated for credit.

AAS 381 / ENGLISH 380 / WOMENSTD 381. Intersections: Fictions and Feminisms of the African Diaspora
AAS 111 (CAAS 111). (3). May not be repeated for credit.
AAS 384 / AMCULT 406 / ENGLISH 384. Caribbean Literature
AAS 202. (3). May be repeated for a maximum of 6 credits.

AAS 385 / ENGLISH 385. African Literature
AAS 200. (3). (HU). May be elected twice for credit. (African Studies).
AAS 390 / WOMENSTD 390. Homophobia in the Black World
One course in WOMENSTD or AAS. (3). May not be repeated for credit.
AAS 394. Junior Seminar in Professional Writing
Upperclass standing. (4). May be repeated for a maximum of 8 credits. (Cross-Area Courses).
AAS 395 / GERMAN 396 / HISTORY 396. Germany and the Black Diaspora
(3). (HU). (R\&E). May not be repeated for credit.

AAS 407 / HISTART 406. Looking at African Things
HISTART 208/AAS 208. (3). May not be repeated for credit. Rackham credit requires additional work.
AAS 408. African Economies: Social and Political Settings
AAS 200. (4; 3 in the half-term). May not be repeated for credit. (African Studies).
AAS 409 / ANTHRCUL 408. Maternal/Child Health and Environmental Pollution in Africa Junior or above. (4). May not be repeated for credit. Rackham credit requires additional work.

AAS 410. Supervised Reading and Research
Consent of instructor required. (1-6). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term (AAS 410 or 510), the final grade is posted for both term's elections. (Cross-Area Courses). F, $W, S p, S u$.

AAS 417. Studying African Americans: An Introduction to Qualitative Research Methods AAS 111 or AAS 201. (3). May not be repeated for credit.

AAS 418 / POLSCI 324. Black Americans and the Political System
One course in Political Science and AAS 201. (3). May not be repeated for credit. (African-American Studies).

AAS 420 / ANTHRCUL 347. Race and Ethnicity
Junior standing. (3; 2 in the half-term). May not be repeated for credit.
AAS 421 / HISTORY 421 / LACS 421 / RELIGION 421. Religions of the African Diaspora
(3). May not be repeated for credit. Rackham credit requires additional work.

AAS 422 / ANTHRCUL 411. African Cultures
AAS 200 (CAAS 200); and junior standing. (3; 2 in the half-term). May not be repeated for credit. (African Studies).

AAS 426. Urban Redevelopment and Social Justice
(3). May not be repeated for credit. (Cross-Area Courses). F.

AAS 432. Violent Environments: Oil, Development and the Discourse of Power AAS 200 (CAAS 200). (3). May not be repeated for credit.

AAS 434 / SOC 434. Social Organization of Black Communities
Introduction to SOC or introduction to AAS. (3). May not be repeated for credit. (African-American Studies).

AAS 436. Witchcraft and Spiritual Insecurity in Africa
AAS 111 (CAAS 111) or AAS 200 (CAAS 200). (3). May not be repeated for credit. (African Studies).
AAS 439 / LING 449. Creole Languages and Caribbean Identities
AAS 202. (3; 2 in the half-term). May not be repeated for credit. (Afro-Caribbean Studies).
AAS 440 / SAC 440 . African Cinema
AAS 200. (3). May not be repeated for credit. (African Studies).
AAS 443 / WOMENSTD 443. Pedagogy of Empowerment: Activism in Race, Gender, and Health AAS 201, WOMENSTD 240 or 220, AMCULT 240, NURS 220. (3). May not be repeated for credit.

AAS 444 / ANTHRCUL 414. Introduction to Caribbean Societies and Cultures, I Junior standing or above. (3). May not be repeated for credit. (Afro-Caribbean Studies). F.

AAS 450. Law, Race, and the Historical Process, I
(3). May not be repeated for credit. (African-American Studies). F.

AAS 451. Law, Race, and the Historical Process, II
AAS 450. (3). May not be repeated for credit. (African-American Studies). W.

## AAS 454 / ANTHRCUL 453. African-American Culture

One introductory course in the social sciences. AAS 201 recommended. (3). May not be repeated for credit. (African-American Studies).

AAS 458. Issues in Black World Studies
(3). May be repeated for a maximum of 6 credits.

## AAS 459 / ANTHRCUL 451. African-American Religion

One introductory course in the social sciences. AAS 201 recommended. (3). May not be repeated for credit. (African-American Studies).

AAS 462. Globalization and African Health
AAS 200 recommended. (3). May not be repeated for credit. Rackham credit requires additional work.
AAS 464 / MUSICOL 464. Music of Latin America and the Caribbean
AAS 202. (3). May not be repeated for credit. (Afro-Caribbean Studies).
AAS 468. Practicum in Field Studies in the Diaspora
AAS 111 or permission of instructor. May require concurrent registration in AAS 469, Issues in the Diaspora. (3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. Rackham credit requires additional work.

AAS 471. Higher Education and African-American Social Development Upperclass standing. (3). May not be repeated for credit.

AAS 473 / HISTORY 473 / LACS 483. Brazil: History and Culture
(3). May not be repeated for credit. Rackham credit requires additional work.

## AAS 474 / NEAREAST 440. The Archaeology of Nubia

NEAREAST 243 (ACABS 281), NEAREAST 338 (ACABS 382), AAS 200, or ANTHRARC 282. (3). May not be repeated for credit.

## AAS 480 / HISTART 408. Visual Culture as History in Africa

AAS 200 (CAAS 200). (3). May not be repeated for credit.
AAS 487. Communication Media in the Black World: Electronic Media
AAS 201. (3). (R\&E). May not be repeated for credit. (African-American Studies).
AAS 490. Special Topics in Black World Studies
(1-2). May be repeated for a maximum of 6 credits.
AAS 495. Senior Seminar
Upperclass standing. (4). May be repeated for a maximum of 8 credits. (Cross-Area Courses). (Capstone Course).

AAS 558. Seminar in Black World Studies
Graduate standing or permission of instructor. (3). May be repeated for a maximum of 6 credits.

## AAS 595 / HISTORY 595. Topics in African History

CAAS 200. (3). May not be repeated for credit. (African Studies).

## Courses in LSA American Culture

American Culture (AMCULT)
AMCULT 100. What is an American?
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

## AMCULT 103. First Year Seminar in American Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

## AMCULT 201. American Values

(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.

## AMCULT 202. Digital Culture

(4; 3 in the half-term). (ID). May not be repeated for credit.
AMCULT 204. Themes in American Culture
(3-4; 3 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

AMCULT 205. American Cultures
(3-4; 3 in the half-term). (HU). May not be repeated for credit.
AMCULT 206. Themes in American Culture
(3-4; 3 in the half-term). (SS). May be elected twice for credit. May be elected more than once in the same term.

AMCULT 208. Post World War II American Sub-Cultural Movements: Beatniks, Hippies, and Punks (3). (SS). May not be repeated for credit.

AMCULT 209. History of American Popular Music
(3). (HU). May not be repeated for credit.

AMCULT 211. Introduction to Ethnic Studies
(3). (HU). May be repeated for a maximum of 6 credits.

AMCULT 213 / LATINOAM 213. Introduction to Latina/o Studies
(3-4). (ID). (R\&E). May not be repeated for credit.
AMCULT 214 / ASIANPAM 214. Introduction to Asian/Pacific American Studies
(3). (ID). (R\&E). May not be repeated for credit.

AMCULT 215 / ARABAM 215 / NEAREAST 275. Introduction to Arab-American Studies
(4). (HU). (R\&E). May not be repeated for credit.

AMCULT 217 / NATIVEAM 217. Introduction to Native American Studies
(4; 3 in the half-term). (HU). May not be repeated for credit.
AMCULT 219. Survey of American Folklore
(3). (HU). May not be repeated for credit.

AMCULT 221 / SOC 221. Social Inequality
(4; 3 in the half-term). (SS). May not be repeated for credit.
AMCULT 222 / NATIVEAM 222. Elementary Ojibwe I
(3; 2 in the half-term). May not be repeated for credit. May not be included in a minor in Native American Studies. F.

AMCULT 223 / NATIVEAM 223. Elementary Ojibwe II
NATIVEAM 222 or AMCULT 222; with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit. May not be included in an academic minor in Native American Studies. W.

AMCULT 224 / LATINOAM 224 / SPANISH 278. Spanish for Heritage Language Learners
Basic knowledge of Spanish language. (4). May not be repeated for credit. No credit granted to students who have completed SPANISH 290. This course does not satisfy the language requirement.

AMCULT 225. Space, Story and the American Self
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
AMCULT 226 / AAS 236 / HISTORY 226 / LACS 226 / LATINOAM 226. The Latin Tinge: Latin Music in Social Context in Latin America and the U.S.
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
AMCULT 228. American Musical Soundscapes
Not available to students who have completed AMCULT 204, Topic: Musical Soundscapes. (Prerequisites enforced at registration.) (4; 3 in the half-term). (HU). May not be repeated for credit.

AMCULT 230 / HISTART 230. Art and Life in 19th-Century America
(3). (HU). May not be repeated for credit.

AMCULT 231. Visual \& Material Culture Studies
(3-4; 3 in the half-term). (HU). May not be repeated for credit.
AMCULT 232 / ENGLISH 282 / NATIVEAM 232. Native American Literature
(4; 3 in the half-term). (HU). May not be repeated for credit.
AMCULT 233 / WOMENSTD 233. Genes and Society: Comparative and International Perspectives (3). (ID). May not be repeated for credit.

AMCULT 234 / ASIAN 232. Zen Masters, Dharma Bums, and Drag Queens: Buddhism in America (3). (HU). May not be repeated for credit.

AMCULT 235 / ARABAM 235 / WOMENSTD 235. From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
(4). (HU). (R\&E). May not be repeated for credit.

AMCULT 236 / ARABAM 236. Muslims in America
(3). May not be repeated for credit.

AMCULT 237 / HISTART 237 / RCHUMS 237. On the Margins of the Art World - Self-Taught Artists in the U.S.
(3). (ID). May not be repeated for credit.

AMCULT 239 / WOMENSTD 239. Gender, Sexuality, and Health in America
(3). (ID). May not be repeated for credit.

AMCULT 240 / WOMENSTD 240. Introduction to Women's Studies
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
AMCULT 241. Health, Biology, and Society: What is Cancer?
(3-4; 1-4 in the half-term). (ID). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLOGY 241.

AMCULT 242 / WOMENSTD 242. Gender Violence in a Global Context
(4). (SS). (R\&E). May not be repeated for credit.

AMCULT 243 / LATINOAM 243 / WOMENSTD 243. Latina Women in the U.S.
(3). (HU). May not be repeated for credit.

AMCULT 244 / HISTART 244. Art of the American Century (1893-1968)
(3). (HU). May not be repeated for credit.

AMCULT 245 / JUDAIC 245. Jews and Other Others
Not available to students who have completed AMCULT 211 or JUDAIC 218 when taught with the topic "Jews and Other Others" (Topic \#1). (Prerequisites enforced at registration.) (3-4). (HU). May not be repeated for credit.

AMCULT 263 / HISTORY 262. The American South
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
AMCULT 267 / AAS 267 / HISTORY 267. Religion in the Making of African America
(3). May not be repeated for credit.

AMCULT 270 / HISTORY 270. Religion in America
(4). (HU). May not be repeated for credit.

AMCULT 273 / AAS 273. The Southern Novel in Historical Context
(3). (R\&E). May not be repeated for credit.

AMCULT 275. Practices of American Culture
(3). (ID). May not be repeated for credit.

AMCULT 276 / ASIAN 276. India as Imaginary Homeland: an Introduction to Cultural Constructions of National Identity
(3). (HU). (R\&E). May not be repeated for credit.

AMCULT 284 / HISTORY 284. Sickness and Health in Society: 1492 to the Present
First-year students must obtain permission of the instructor. (3-4; 3 in the half-term). (SS). May not be repeated for credit.

AMCULT 290 / ARABAM 290. Arab-American Literature
(3). (HU). May not be repeated for credit.

AMCULT 293 / WOMENSTD 293. 20th Century Writing by Women of Color
(3). (HU). May not be repeated for credit.

AMCULT 295 / WOMENSTD 295. Sexuality in Western Culture
(3). (SS). May not be repeated for credit.

AMCULT 301. Topics in American Culture
(1-4). May be elected twice for credit. May be elected more than once in the same term.
AMCULT 303. Race and Mixed Race
(4). (HU). (R\&E). May not be repeated for credit.

## AMCULT 304 / SOC 304. American Immigration

One introductory course in Sociology or American Culture. (4). (SS). (R\&E). May not be repeated for credit.

AMCULT 306 / PSYCH 317. Community Research
One of the following: PSYCH 111, 112, 114, or 115. (4). May not be repeated for credit.
AMCULT 308 / HISTORY 315. American Constitutional History
Students should have a good general knowledge of United States History, such as that acquired in HISTORY 260 and 261, or equivalent rigorous high school history courses. (4; 3 in the half-term). (SS). May not be repeated for credit.

AMCULT 310. Topics in Ethnic Studies
(3). (SS). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

AMCULT 311. American Culture and the Humanities
(1-4). (HU). May be elected twice for credit. May be elected more than once in the same term. F.
AMCULT 313 / ANTHRCUL 314 / LATINOAM 313. Cuba and its Diaspora
(3). (R\&E). May not be repeated for credit. F.

AMCULT 314 / ASIANPAM 314 / HISTORY 378. History of Asian Americans in the U.S.
(4; 3 in the half-term). (SS). May not be repeated for credit.
AMCULT 315 / HISTORY 377 / LATINOAM 315. History of Latina/os in the U.S.
(3-4). (R\&E). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AMCULT 312 or HISTORY 312.

AMCULT 318 / GREEKMOD 318. Greek-American Culture
(3). (R\&E). May not be repeated for credit.

AMCULT 319 / PSYCH 319. Empowering Families and Communities
One of the following: PSYCH 111, 112, 114, or 115. (4). May not be repeated for credit.
AMCULT 320 / JUDAIC 320 / NEAREAST 380. The Jewish Graphic Novel
(3). (HU). May not be repeated for credit.

AMCULT 321 / PSYCH 325. Practicum in the Multicultural Community
One of the following: PSYCH 111, 112, 114, or 115. (1-4). (EXPERIENTIAL). May not be repeated for credit. A total of six credits of PSYCH letter-graded experiential courses may be counted for the Psychology major. PSYCH 325 must be taken for at least three credits to count as an experiential lab in the Psychology major. No more than 6 credits of directed readings/internships may be counted toward the American Culture major.

## AMCULT 322 / NATIVEAM 322. Intermediate Ojibwe I

NATIVEAM 223 or AMCULT 223; with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit. F.

AMCULT 323 / NATIVEAM 323. Intermediate Ojibwe II
NATIVEAM 322 or AMCULT 322; with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). (Lang Req). May not be repeated for credit. W.

AMCULT 324 / ASIANPAM 324 / ENGLISH 381. Asian American Literature
(3). (HU). May not be repeated for credit.

AMCULT 325 / ASIANPAM 325 / ENGLISH 388. Pacific Literary and Cultural Studies
(3). (HU). May not be repeated for credit.

## AMCULT 326 / COMM 326. American Magazines

(4; 3 in the half-term). (HU). May not be repeated for credit. No credit granted to students who have completed AMCULT 250.

AMCULT 327 / ENGLISH 387 / LATINOAM 327. Latina/Latino Literature of the U.S.
(3). (HU). May not be repeated for credit. Taught in English.

AMCULT 328 / ENGLISH 382 / NATIVEAM 328. Studies in Native American Literature
(3). (HU). May not be repeated for credit.

AMCULT 331 / HISTORY 356 / WOMENSTD 356. Health in America: Patterns, Experiences, and Inequalities
(3-4). (ID). (R\&E). May not be repeated for credit.
AMCULT 333 / NATIVEAM 333. Green Indigeneity
Not available to students who have completed AMCULT 311 (Topic \#11) or ENGLISH 317 (Topic \#33) when taught with the topic "Green Indigeneity". (Prerequisites enforced at registration.) (3-4). (HU). May not be repeated for credit.

AMCULT 334 / COMM 334 / SAC 334. Race, Gender, Sexuality and U.S. Culture in Video Games (4; 3 in the half-term). May not be repeated for credit.

AMCULT 335. Arts and Culture in American Life
(4; 3 in the half-term). (HU). May not be repeated for credit. F.
AMCULT 336 / AAS 334. Popular Culture in Contemporary Black America AAS 201. (3). (HU). May not be repeated for credit.

AMCULT 337. A Survey of American Blues Music
(3). (HU). May not be repeated for credit.

AMCULT 340 / AAS 340. A History of Blacks in American Film AAS 201. (3). May not be repeated for credit.

AMCULT 341 / HISTORY 343. Rise of the Corporation
(3). (SS). May not be repeated for credit.

AMCULT 342 / HISTORY 368 / WOMENSTD 360 . History of the Family in the U.S. (4; 3 in the half-term). (ID). May not be repeated for credit.

AMCULT 345. American Politics and Society
(3). (SS). May not be repeated for credit.

AMCULT 346 / GERMAN 346 / SAC 346. Media Matter: From Print to Screen Culture (3). (HU). May not be repeated for credit.

AMCULT 348 / HISTORY 346. History of American Radicalism
(4; 3 in the half-term). (SS). May not be repeated for credit.
AMCULT 350. Approaches to American Culture
American Culture majors. (Prerequisites enforced at registration.) (3). May not be repeated for credit.
AMCULT 352 / ASIANPAM 352. Asian/Pacific Islander American Cultural Performance (4; 3 in the half-term). (HU). May not be repeated for credit.

AMCULT 353 / ASIANPAM 353 / HISTORY 454. Asians in American Film and Television (4; 3 in the half-term). (ID). (R\&E). May not be repeated for credit.

AMCULT 354 / ENGLISH 312 / ENVIRON 354. Camp Davis: History and Literature of the Rockies Consent of department required. (3 in the half-term). (HU). May not be repeated for credit. Su at Camp Davis, Wyoming. May not be taken pass/fail.

AMCULT 355. Topics in American Creative Expression
(1-3). (CE). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

AMCULT 358. Topics in Digital Studies
(1-4). (ID). May be elected twice for credit. May be elected more than once in the same term.
AMCULT 361 / EDUC 395 / ELI 395 / LATINOAM 361 / LING 391 / RCSSCI 395. Principles and Practices of Teaching ESL in Migrant Communities
(3). (EXPERIENTIAL). May be elected three times for credit.

AMCULT 362 / EDUC 396 / ELI 396 / LATINOAM 362 / LING 396 / RCSSCI 396. Migrant Community Outreach and ESL Teaching Practicum
ELI 395; completed with a minimum grade of C or better. (Prerequisites enforced at registration.) (2-3). (EXPERIENTIAL). May be elected three times for credit.

AMCULT 363 / ASIANPAM 363 / WOMENSTD 363. Asian/Pacific Islander American Women (3). May not be repeated for credit.

## AMCULT 365. AIDS and America

Not available to students who have completed AMCULT 206 when taught with the topic "AIDS in America" (Topic \#1). (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

AMCULT 366 / HISTORY 353 / WOMENSTD 366. Sex and Sexuality in U.S. Popular Culture (3). (HU). May not be repeated for credit.

AMCULT 367 / HISTORY 367 / NATIVEAM 367. American Indian History
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
AMCULT 369 / HISTORY 369. The History of U.S. Mass Culture From Minstrelsy to Hip Hop (4; 3 in the half-term). (HU). May not be repeated for credit.

AMCULT 373 / HISTORY 373. History of the U.S. West
(4; 3 in the half-term). (HU). May not be repeated for credit.
AMCULT 374 / HISTORY 374. The Politics and Culture of the "Sixties"
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
AMCULT 380 / LATINOAM 380 / SAC 380. Studies in Transnational Media
Prior coursework in Screen Arts \& Cultures, Communications (TV), or Latino Studies. Knowledge of Spanish is not required. (3). May not be repeated for credit. Taught in English.

AMCULT 381 / LATINOAM 381 / SAC 381. Latinas/Latinos and the Media
Consent of department required. (3). (HU). May not be repeated for credit.
AMCULT 383. Junior Honors Reading and Thesis
Consent of instructor required. Juniors only. (3; 2 in the half-term). (INDEPENDENT). May not be repeated for credit. F, W, Sp/Su, Sp, Su.

AMCULT 385 / HISTORY 335 / LATINOAM 385. Immigration Law: Critical Approaches to Contemporary Issues
(3-4; 3 in the half-term). (SS). May not be repeated for credit.
AMCULT 387 / HISTORY 387 / JUDAIC 387. History of American Jews
(4; 3 in the half-term). May not be repeated for credit.
AMCULT 388. Field Study
Consent of instructor required. Sophomore standing. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## AMCULT 389. Reading Course in American Culture

Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. No more than 6 credits of directed readings/internships may be counted toward the American Culture major. F, W, Sp/Su, $s p, S u$.

AMCULT 398. Junior Honors Writing Workshop
Consent of instructor required. Permission of a concentration advisor in American Culture. (1-3). May not be repeated for credit.

AMCULT 399. Race in America
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
AMCULT 405. Topics in American Culture
(1-4). May be elected twice for credit. May be elected more than once in the same term.
AMCULT 406 / AAS 384 / ENGLISH 384. Caribbean Literature
AAS 202. (3). May be repeated for a maximum of 6 credits.
AMCULT 407. The History of American Folk Music: Culture, Politics, Music
Consent of instructor required. (3). May not be repeated for credit.
AMCULT 409 / MUSICOL 409. American Roots Music from Sacred Harp to Contemporary Blues (3). May not be repeated for credit.

AMCULT 410 / SI 410. Ethics and Information Technology
(4). May not be repeated for credit.

AMCULT 411 / WOMENSTD 411. Rednecks, Queers, and Country Music
One course in Women's Studies or American Culture. (3). May not be repeated for credit.
AMCULT 420 / LATINOAM 420 / SPANISH 420. Latin American \& Latino/a Film Studies Nine credits chosen from: SPANISH 279 and 399 or two RCLANG 324; and six credits chosen from SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

AMCULT 425 / WOMENSTD 425. Feminist Practice of Oral History One course in WOMENSTD or AMCULT. (3). May not be repeated for credit. Rackham credit requires additional work.

AMCULT 433 / HISTART 431. Made in Detroit: A History of Art and Culture in the Motor City Upperclass standing; prior coursework in Art History, U.S. History, American Culture, or Urban studies, and permission of instructor. (3). May not be repeated for credit.

AMCULT 437 / JUDAIC 437. Yiddish in New York: The First 150 Years
(3). May not be repeated for credit. Rackham credit requires additional work.

AMCULT 440 / HISTORY 440. American Thought and Culture Since 1940
(3). May not be repeated for credit. Rackham credit requires additional work.

AMCULT 461 / ANTHRCUL 461 / LING 461 / NATIVEAM 461. Language, Culture, and Society in Native North America
(3). May not be repeated for credit.

AMCULT 462 / HISTORY 461. The American Revolution
(4; 3 in the half-term). May not be repeated for credit. Rackham credit requires additional work.

## AMCULT 489. Senior Essay

Consent of instructor required. Senior concentrators and AMCULT 350. (3). (INDEPENDENT). May not be repeated for credit.

## AMCULT 493. Honors Readings and Thesis

Consent of instructor required. Senior standing and a grade point average of at least 3.5 in Honors concentration. (1-3). May be repeated for a maximum of 6 credits. No more than 6 credits of directed readings/internships may be counted toward the American Culture major. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of AMCULT 493, the final grade is posted for both term's elections. F, W, Sp/Su, Sp, Su.

## AMCULT 496. Social Science Approaches to American Culture

(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

## AMCULT 498. Capstone Seminar in American Culture

(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

## AMCULT 519 / WOMENSTD 519. Queer Women in the 20th Century

(3). May not be repeated for credit.

Arab American Studies (ARABAM)

## ARABAM 102. First Year Seminar in Arab American Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

ARABAM 103. First Year Seminar in Arab American Studies
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

ARABAM 204. Themes in Arab American Studies
(3-4; 3 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

ARABAM 206. Themes in Arab American Studies
(3-4; 3 in the half-term). (SS). May be elected twice for credit. May be elected more than once in the same term.

ARABAM 215 / AMCULT 215 / NEAREAST 275. Introduction to Arab-American Studies
(4). (HU). (R\&E). May not be repeated for credit.

ARABAM 235 / AMCULT 235 / WOMENSTD 235. From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
(4). (HU). (R\&E). May not be repeated for credit.

ARABAM 236 / AMCULT 236. Muslims in America
(3). May not be repeated for credit.

## ARABAM 290 / AMCULT 290. Arab-American Literature

(3). (HU). May not be repeated for credit.

ARABAM 301. Topics in Arab American Studies
(1-4). May be elected twice for credit. May be elected more than once in the same term.
ARABAM 310. Arab American Studies and the Social Sciences
(3). (SS). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

ARABAM 311. Arab American Studies and the Humanities
(1-4). (HU). May be elected twice for credit. May be elected more than once in the same term.
ARABAM 388. Field Study
Consent of instructor required. Sophomore standing. (1-4). (EXPERIENTIAL). (INDEPENDENT). May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## ARABAM 389. Reading Course in Arab American Studies

Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. No more than 6 credits of directed readings/internships may be counted toward the American Culture major.

ARABAM 390. Internship in Arab and Muslim American Studies
Consent of instructor required. (2-4;1-4 in the half-term). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. Not available to students who have completed six (6) credits in ARABAM 388 or AMCULT 390. Offered mandatory credit/no credit.

ARABAM 405. Topics in Arab American Studies
(1-4). May be elected twice for credit. May be elected more than once in the same term.
ARABAM 498. Capstone Seminar in Arab American Studies
(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

Asian/Pacific Island Amer Std (ASIANPAM)

## ASIANPAM 102. First Year Seminar in Asian/Pacific Islander American Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

## ASIANPAM 103. First Year Seminar in Asian/Pacific Islander American Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

## ASIANPAM 204. Themes in Asian/Pacific Islander American Studies

(3-4;3 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

ASIANPAM 206. Themes in Asian/Pacific Islander American Studies
(3-4; 3 in the half-term). (SS). May be elected twice for credit. May be elected more than once in the same term.

ASIANPAM 214 / AMCULT 214. Introduction to Asian/Pacific American Studies (3). (ID). (R\&E). May not be repeated for credit.

ASIANPAM 301. Topics in Asian/Pacific Islander American Studies
(1-4). May be elected twice for credit. May be elected more than once in the same term.
ASIANPAM 310. Asian/Pacific Islander American Studies and the Social Sciences
(3). (SS). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

ASIANPAM 311. Asian/Pacific Islander American Studies and the Humanities
(1-4). (HU). May be elected twice for credit. May be elected more than once in the same term.
ASIANPAM 314 / AMCULT 314 / HISTORY 378. History of Asian Americans in the U.S.
(4; 3 in the half-term). (SS). May not be repeated for credit.
ASIANPAM 324 / AMCULT 324 / ENGLISH 381. Asian American Literature
(3). (HU). May not be repeated for credit.

ASIANPAM 325 / AMCULT 325 / ENGLISH 388. Pacific Literary and Cultural Studies
(3). (HU). May not be repeated for credit.

ASIANPAM 352 / AMCULT 352. Asian/Pacific Islander American Cultural Performance (4; 3 in the half-term). (HU). May not be repeated for credit.

ASIANPAM 353 / AMCULT 353 / HISTORY 454. Asians in American Film and Television (4; 3 in the half-term). (ID). (R\&E). May not be repeated for credit.

ASIANPAM 363 / AMCULT 363 / WOMENSTD 363. Asian/Pacific Islander American Women
(3). May not be repeated for credit.

ASIANPAM 388. Field Study
Consent of instructor required. Sophomore standing. (1-4). (EXPERIENTIAL). (INDEPENDENT). May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## ASIANPAM 389. Reading Course in Asian/Pacific Islander American Studies

Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. No more than 6 credits of directed readings/internships may be counted toward the American Culture major.

ASIANPAM 405. Topics in Asian/Pacific Islander American Studies
(1-4). May be elected twice for credit. May be elected more than once in the same term.
ASIANPAM 498. Capstone Seminar in Asian/Pacific Islander American Studies
(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

Latina/o American Studies (LATINOAM)

## LATINOAM 102. First Year Seminar in Latina/o Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

## LATINOAM 103. First Year Seminar in Latina/o Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

LATINOAM 204. Themes in Latina/o Studies
(3-4; 3 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

LATINOAM 206. Themes in Latina/o Studies
(3-4; 3 in the half-term). (SS). May be elected twice for credit. May be elected more than once in the same term.

LATINOAM 213 / AMCULT 213. Introduction to Latina/o Studies
(3-4). (ID). (R\&E). May not be repeated for credit.
LATINOAM 224 / AMCULT 224 / SPANISH 278. Spanish for Heritage Language Learners
Basic knowledge of Spanish language. (4). May not be repeated for credit. No credit granted to students who have completed SPANISH 290.

LATINOAM 226 / AAS 236 / AMCULT 226 / HISTORY 226 / LACS 226. The Latin Tinge: Latin Music in Social Context in Latin America and the U.S.
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
LATINOAM 243 / AMCULT 243 / WOMENSTD 243. Latina Women in the U.S.
(3). (HU). May not be repeated for credit.

LATINOAM 301. Topics in Latina/o Studies
(1-4). May be elected twice for credit. May be elected more than once in the same term.
LATINOAM 310. Latina/o Studies and the Social Sciences
(3). (SS). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

LATINOAM 311. Latina/o Studies and the Humanities
(1-4). (HU). May be elected twice for credit. May be elected more than once in the same term.
LATINOAM 313 / AMCULT 313 / ANTHRCUL 314. Cuba and its Diaspora
(3). (R\&E). May not be repeated for credit.

LATINOAM 315 / AMCULT 315 / HISTORY 377. History of Latina/os in the U.S.
(3-4). (R\&E). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AMCULT 312 or HISTORY 312.

LATINOAM 327 / AMCULT 327 / ENGLISH 387. Latina/Latino Literature of the U.S.
(3). (HU). May not be repeated for credit.

LATINOAM 361 / AMCULT 361 / EDUC 395 / ELI 395 / LING 391 / RCSSCI 395. Principles and Practices of Teaching ESL in Migrant Communities
(3). (EXPERIENTIAL). May be elected three times for credit.

LATINOAM 362 / AMCULT 362 / EDUC 396 / ELI 396 / LING 396 / RCSSCI 396. Migrant Community Outreach and ESL Teaching Practicum

ELI 395; completed with a minimum grade of C or better. (Prerequisites enforced at registration.) (2-3). (EXPERIENTIAL). May be elected three times for credit.

LATINOAM 380 / AMCULT 380 / SAC 380. Studies in Transnational Media
Prior coursework in Screen Arts \& Cultures, Communications (TV), or Latino Studies. Knowledge of Spanish is not required. (3). May not be repeated for credit.

LATINOAM 381 / AMCULT 381 / SAC 381. Latinas/Latinos and the Media
Consent of department required. (3). (HU). May not be repeated for credit.
LATINOAM 385 / AMCULT 385 / HISTORY 335. Immigration Law: Critical Approaches to Contemporary Issues
(3-4; 3 in the half-term). (SS). May not be repeated for credit.

## LATINOAM 388. Field Study

Consent of instructor required. Sophomore standing. (1-4). (EXPERIENTIAL). (INDEPENDENT). May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## LATINOAM 389. Reading Course in Latina/o Studies

Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. No more than 6 credits of directed readings/internships may be counted toward the American Culture major.

## LATINOAM 405. Topics in Latina/o Studies

(1-4). May be elected twice for credit. May be elected more than once in the same term.
LATINOAM 420 / AMCULT 420 / SPANISH 420. Latin American \& Latino/a Film Studies
Nine credits chosen from: SPANISH 279 and 399 or two RCLANG 324; and six credits chosen from SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

LATINOAM 440. Topics in Latina/o Studies - Spanish Language
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Taught in Spanish.

## LATINOAM 498. Capstone Seminar in Latina/o Studies

(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

Native American Studies (NATIVEAM)

## NATIVEAM 102. First Year Seminar in Native American Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

## NATIVEAM 103. First Year Seminar in Native American Studies

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

## NATIVEAM 204. Themes in Native American Studies

(3-4; 3 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

## NATIVEAM 206. Themes in Native American Studies

(3-4; 3 in the half-term). (SS). May be elected twice for credit. May be elected more than once in the same term.

## NATIVEAM 217 / AMCULT 217. Introduction to Native American Studies

(4; 3 in the half-term). (HU). May not be repeated for credit.

## NATIVEAM 222 / AMCULT 222. Elementary Ojibwe I

(3; 2 in the half-term). May not be repeated for credit.

## NATIVEAM 223 / AMCULT 223. Elementary Ojibwe II

NATIVEAM 222 or AMCULT 222; with a minimum grade of C- or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## NATIVEAM 232 / AMCULT 232 / ENGLISH 282. Native American Literature

(4; 3 in the half-term). (HU). May not be repeated for credit.

## NATIVEAM 301. Topics in Native American Studies

(1-4). May be elected twice for credit. May be elected more than once in the same term.

## NATIVEAM 310. Native American Studies and the Social Sciences

(3). (SS). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## NATIVEAM 311. Native American Studies and the Humanities

(1-4). (HU). May be elected twice for credit. May be elected more than once in the same term.

## NATIVEAM 322 / AMCULT 322. Intermediate Ojibwe I

NATIVEAM 223 or AMCULT 223; with a minimum grade of C- or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## NATIVEAM 323 / AMCULT 323. Intermediate Ojibwe II

NATIVEAM 322 or AMCULT 322; with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). (Lang Req). May not be repeated for credit.

## NATIVEAM 328 / AMCULT 328 / ENGLISH 382. Studies in Native American Literature

(3). (HU). May not be repeated for credit.

## NATIVEAM 333 / AMCULT 333. Green Indigeneity

Not available to students who have completed AMCULT 311 (Topic \#11) or ENGLISH 317 (Topic \#33) when taught with the topic "Green Indigeneity". (Prerequisites enforced at registration.) (3-4). (HU). May not be repeated for credit.

NATIVEAM 367 / AMCULT 367 / HISTORY 367. American Indian History
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

## NATIVEAM 388. Field Study

Consent of instructor required. Sophomore standing. (1-4). (EXPERIENTIAL). (INDEPENDENT). May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## NATIVEAM 389. Reading Course in Native American Studies

Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. No more than 6 credits of directed readings/internships may be counted toward the American Culture major.

## NATIVEAM 405. Topics in Native American Studies

(1-4). May be elected twice for credit. May be elected more than once in the same term.
NATIVEAM 461 / AMCULT 461 / ANTHRCUL 461 / LING 461. Language, Culture, and Society in Native North America
(3). May not be repeated for credit.

## NATIVEAM 498. Capstone Seminar in Native American Studies

(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

## Courses in LSA Anthropology

## Anthropology, Archaeological (ANTHRARC)

ANTHRARC 180. First-Year Seminar in Anthropological Archaeology
Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

ANTHRARC 282. Introduction to Prehistoric Archaeology
(4). (SS). May not be repeated for credit.

ANTHRARC 284. Aztec, Maya, and Inca Civilizations
(4). (SS). May not be repeated for credit.

ANTHRARC 285. Frauds and Fantastic Claims in Archaeology
(4). (SS). (R\&E). May not be repeated for credit.

ANTHRARC 296. Topics in Archaeology
(3). (SS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

ANTHRARC 381 / HISTART 382 / NEAREAST 338. Introduction to Egyptian Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit.
ANTHRARC 382. European Prehistory
(3; 2 in the half-term). (SS). May not be repeated for credit.
ANTHRARC 383. Prehistory: Africans
Sophomore standing. (3). (SS). May not be repeated for credit.
ANTHRARC 384 / NEAREAST 337. Ancient Mesopotamia: History and Culture
Sophomore standing. (4; 3 in the half-term). (ID). May not be repeated for credit.
ANTHRARC 385. The Archaeology of Early Humans
Sophomore standing. (3). (SS). May not be repeated for credit.

## ANTHRARC 386. Early Civilizations

Sophomore standing. (4; 2 in the half-term). (SS). May not be repeated for credit.
ANTHRARC 392. Archaeology Underwater
(3). (SS). May not be repeated for credit.

## ANTHRARC 394. Undergraduate Seminar in Archaeology

Consent of instructor required. ANTHRARC 282; and concentration in Anthropology. (3). May not be repeated for credit.

ANTHRARC 398. Honors in Anthropological Archaeology
Senior standing. (Prerequisites enforced at registration.) (3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## ANTHRARC 399. Honors in Anthropological Archaeology

Senior standing and permission of instructor. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. $W$.

## ANTHRARC 480. Practica in Archaeological Research Techniques

Juniors and above or permission of instructor. (1-3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## ANTHRARC 482. Topics in Anthropological Archaeology

Consent of instructor required. Junior standing. (3). May be elected twice for credit. May be elected more than once in the same term.

## ANTHRARC 487. UM Training Program in Archaeology

(6). May not be repeated for credit. May not be used toward the Anthropology academic minors.

## ANTHRARC 490. Prehistory of North America

Sophomore \& above/permission of instructor. (3). May not be repeated for credit.

## ANTHRARC 492. Prehistory of Oceania

ANTHRCUL 101, ANTHRARC 282, or junior standing. (3). May not be repeated for credit.

## ANTHRARC 494. Introduction to Analytical Methods in Archaeology

Consent of instructor required. One course in statistics and junior standing. (3). May not be repeated for credit.

## ANTHRARC 497. Museum Anthropology

Junior standing. (3). May not be repeated for credit.

## ANTHRARC 499. Undergraduate Reading and Research in Anthropology

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. May not be used toward the Anthropology academic minors.

Anthropology, Biological (ANTHRBIO)
ANTHRBIO 166. First Year Seminar: Searching for Human Origins
Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## ANTHRBIO 201. Introduction to Biological Anthropology

(4). (NS). (BS). May not be repeated for credit.

ANTHRBIO 297. Topics in Biological Anthropology
(3). (NS). (BS). May be repeated for a maximum of 12 credits.

ANTHRBIO 342 / ANTHRCUL 342. Nature/Culture Now!
ANTHRCUL 101. (4). (SS). (BS). May not be repeated for credit.
ANTHRBIO 362 / EEB 362 / ENVIRON 362. Primate Evolutionary Ecology
An introductory course on primates, ecology, or conservation biology is advised. No quantitative or statistical training is required. (3). (NS). (BS). May not be repeated for credit.

## ANTHRBIO 363. Genes, Disease, and Culture

(4). (NS). (BS). May not be repeated for credit. F.

## ANTHRBIO 364. Nutrition and Evolution

Sophomore standing. (4; 3 in the half-term). (NS). (BS). May not be repeated for credit.

## ANTHRBIO 365. Human Evolution

Sophomore or Junior or Senior. (Prerequisites enforced at registration.) High school biology is assumed. (4). (NS). (BS). May not be repeated for credit.

ANTHRBIO 368 / PSYCH 338. Primate Social Behavior I
(4). (NS). (BS). May not be repeated for credit. F.

ANTHRBIO 369. Topics in Biological Anthropology
(3). (BS). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

ANTHRBIO 370. U.G. Reading and Research in Anthropology
Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## ANTHRBIO 371. Techniques in Biological Anthropology

Consent of instructor required. (1-3). (BS). May be repeated for a maximum of 6 credits. May not be included in a concentration plan in Anthropology.

## ANTHRBIO 373. Humans and Environmental Change

ANTHRBIO 201. (3). (NS). (BS). May not be repeated for credit.
ANTHRBIO 398. Honors in Biological and Evolutionary Anthropology
Seniors Only. Consent of instructor required. (Prerequisites enforced at registration.) (3). (BS).
(INDEPENDENT). May be elected twice for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of ANTHRBIO 399, the final grade is posted for both term's elections. F.

ANTHRBIO 399. Honors in Biological and Evolutionary Anthropology
Seniors Only. Consent of instructor required. (Prerequisites enforced at registration.) Senior standing. (3). (BS). (INDEPENDENT). May be repeated for a maximum of 6 credits. W.

## ANTHRBIO 450. Molecular Anthropology

ANTHRBIO 161 and 363. (4). (BS). May not be repeated for credit.

## ANTHRBIO 461 / ENVIRON 461. Primate Conservation Biology

An introductory course on primates, ecology, or conservation biology is advised. No quantitative or statistical training is required. (3). (BS). May not be repeated for credit.

ANTHRBIO 462. Human Growth and Development Across the Life Cycle
ANTHRBIO 201, 364, 365 or 465. (4). (BS). May not be repeated for credit.
ANTHRBIO 465. Primate Functional Anatomy
ANTHRBIO 201, 365, 366 or 368. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## ANTHRBIO 466. Evolutionary Processes

ANTHRBIO 201. (3). (BS). May not be repeated for credit.

## ANTHRBIO 467. Human Behavioral Ecology

A strong background in the natural sciences is assumed, including any two of the following courses:
ANTHRBIO 161, 368; BIOLOGY 162, 171, 172; MCDB 404; EEB 494. (4; 3 in the half-term). (BS). May not be repeated for credit.

## ANTHRBIO 469. Topics in Biological Anthropology

Consent of instructor required. (2-4; 2-3 in the half-term). (BS). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## ANTHRBIO 471. Research in Biological Anthropology

Consent of instructor required. (1-4). (BS). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## ANTHRBIO 472. Human Nature

Consent of instructor required. ANTHRBIO 467. (2). (BS). May not be repeated for credit.

## ANTHRBIO 474. Hominid Origins

ANTHRBIO 365. (4). (BS). May not be repeated for credit.

## ANTHRBIO 475. Evolution of Genus Homo

ANTHRBIO 351 or 365. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit.

## ANTHRBIO 476. Methods in Paleodiet Reconstruction

ANTHRBIO 201. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## ANTHRBIO 478. Primate Behavioral Ecology

Consent of instructor required. ANTHRBIO 368. (3). (BS). May not be repeated for credit.
Anthropology, Cultural (ANTHRCUL)
ANTHRCUL 101. Introduction to Anthropology
(4). (SS). (R\&E). May not be repeated for credit. Does not count toward requirements for the Anthropology major. F, W, Sp.

## ANTHRCUL 158. First Year Seminar in Anthropology

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit. May not be included in an Anthropology major.

## ANTHRCUL 202. Ethnic Diversity in Japan

(4). (SS). (R\&E). May not be repeated for credit.

## ANTHRCUL 209 / HISTART 290. Ethnicity and Art in Japan

(4). (HU). May not be repeated for credit.

ANTHRCUL 212 / NURS 225 / WOMENSTD 212. The Global HIV/AIDS Epidemic
(4). (SS). May not be repeated for credit.

## ANTHRCUL 222. The Comparative Study of Cultures

(4; 2 in the half-term). (SS). May not be repeated for credit.
ANTHRCUL 226 / HISTORY 229. Introduction to Historical Anthropology
(3). (SS). May not be repeated for credit.

ANTHRCUL 246 / RELIGION 246. Anthropology of Religion
(4). May not be repeated for credit.

ANTHRCUL 254. The Anthropology of Food
(4). (SS). May not be repeated for credit.

ANTHRCUL 256 / ENVIRON 256. Culture, Adaptation, and Environment
(3). (SS). May not be repeated for credit.

## ANTHRCUL 258. Honors Seminar in Anthropology

LSA Honors. (Prerequisites enforced at registration.) Honors students with sophomore standing or above. (3). May not be repeated for credit.

ANTHRCUL 272 / LING 272. Language in Society
Primarily for first- and second-year students. (4). (SS). May not be repeated for credit. Primarily for firstand second-year students. W.

## ANTHRCUL 298. Topics in Sociocultural Anthropology

(3). (SS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## ANTHRCUL 299. Topics in Linguistic Anthropology

(3). (SS). May be repeated for a maximum of 12 credits.

ANTHRCUL 302 / HISTART 302 / WOMENSTD 302. Sex and Gender in Japan
(3). (SS). May not be repeated for credit.

ANTHRCUL 310. The State in Africa
(4). May not be repeated for credit.

## ANTHRCUL 314 / AMCULT 313 / LATINOAM 313. Cuba and its Diaspora

(3). (R\&E). May not be repeated for credit. F.

ANTHRCUL 317 / REEES 397. Communism and Capitalism in Eastern Europe
(4). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in REEES 396 or SLAVIC 396 or POLSCI 396 or HISTORY 333 or SOC 393. May not be counted in a Slavic Department academic minor.

ANTHRCUL 319. Latin American Society and Culture
(3). (SS). (R\&E). May not be repeated for credit.

ANTHRCUL 320. Mexico: Culture and Society
(3). May not be repeated for credit.

## ANTHRCUL 325 / WOMENSTD 324. Childbirth \& Culture

Sophomore standing. (4). (SS). May not be repeated for credit.
ANTHRCUL 327 / RCSSCI 327 / WOMENSTD 307. Critical Theory in Medicine and Healing
One course in ANTHRCUL or RCSSCI or WOMENSTD 240 or WOMENSTD with an SS designation. (4). (SS).
May not be repeated for credit.

## ANTHRCUL 328. Globalizing Consumer Cultures

(3). (SS). May not be repeated for credit.

ANTHRCUL 330. Culture, Thought, and Meaning
(4). (HU). May not be repeated for credit.

ANTHRCUL 331. Kinship, Social Organization, and Society
One course in Anthropology. (3). (SS). May not be repeated for credit.

## ANTHRCUL 332. Exchange, Commodities, and Money

Sophomore standing. (4; 3 in the half-term). (SS). May not be repeated for credit.
ANTHRCUL 333. Non-Western Legal Systems, I
Sophomore standing. (3). (SS). May not be repeated for credit. F.
ANTHRCUL 334. Anthropology and Development
(3). (SS). May not be repeated for credit.

ANTHRCUL 342 / ANTHRBIO 342. Nature/Culture Now!
ANTHRCUL 101. (4). (SS). (BS). May not be repeated for credit.

## ANTHRCUL 344. Medical Anthropology

ANTHRCUL 101 or 222; or sophomore and above. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

ANTHRCUL 345. Cultural Anthropology Mini-Course
(1-2). May be elected twice for credit. May be elected more than once in the same term.
ANTHRCUL 346 / HISTORY 347. Latin America: The Colonial Period
(4). (SS). May not be repeated for credit.

ANTHRCUL 347 / AAS 420. Race and Ethnicity
Junior standing. (3; 2 in the half-term). May not be repeated for credit.
ANTHRCUL 349. Indigenous Political Movements
(3). May not be repeated for credit.

## ANTHRCUL 352. Anthropology of the Body

(3). (SS). May not be repeated for credit.

ANTHRCUL 354 / HISTART 354. Art, Science, and Technology
(4). (ID). May not be repeated for credit.

ANTHRCUL 355 / AAS 355 / HISTORY 355. Health and Illness in African Worlds
(4; 3 in the half-term). (R\&E). May not be repeated for credit.

## ANTHRCUL 356. Topics in Sociocultural Anthropology

ANTHRCUL 101. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## ANTHRCUL 357. Seminar in Sociocultural Anthropology

A course in cultural anthropology and junior standing. (3; 2 in the half-term). May not be repeated for credit.

ANTHRCUL 370 / LING 370. Language and Discrimination: Language as Social Statement
(3). (SS). (R\&E). May not be repeated for credit.

ANTHRCUL 374 / LING 374. Language and Culture
Sophomore standing. (4). (HU). May not be repeated for credit.
ANTHRCUL 375 / LING 362. Talking and Telling
One course in linguistics, anthropology, or a related field. (3). May not be repeated for credit.
ANTHRCUL 398. Honors in Sociocultural and Linguistic Anthropology
Seniors Only. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of ANTHRCUL 399, the final grade is posted for both term's elections. F.

ANTHRCUL 399. Honors in Sociocultural and Linguistic Anthropology
Senior standing. Consent of instructor required. (Prerequisites enforced at registration.) (3). May not be repeated for credit. W.

ANTHRCUL 402. Chinese Society and Cultures
Junior standing. (3). May not be repeated for credit.
ANTHRCUL 404. Peoples and Cultures of Southeast Asia
ANTHRCUL 101 or 222. (3; 2 in the half-term). May not be repeated for credit.
ANTHRCUL 408 / AAS 409. Maternal/Child Health and Environmental Pollution in Africa
Junior or above. (4). May not be repeated for credit. Rackham credit requires additional work.
ANTHRCUL 409. Peoples and Cultures of the Near East and North Africa
Junior standing. (3; 2 in the half-term). May not be repeated for credit.
ANTHRCUL 411 / AAS 422. African Cultures
AAS 200 (CAAS 200); and junior standing. (3; 2 in the half-term). May not be repeated for credit.
ANTHRCUL 414 / AAS 444. Introduction to Caribbean Societies and Cultures, I
Junior standing or above. (3). May not be repeated for credit.
ANTHRCUL 417 / ASIAN 416. Possessing Culture: Mediumship and Ethnography in Southeast Asia
Some coursework in cultural anthropology or Southeast Asian studies is useful, but not required. (3). May not be repeated for credit.

ANTHRCUL 428 / RCSSCI 428 / WOMENSTD 428. Sex Panics in the US and UK since 1890
One course in WOMENSTD or ANTHRCUL or RCSSCI, SOC, or HISTORY. (3). May not be repeated for credit.
ANTHRCUL 437. The Anthropology of Death, Dying and the Afterlife
(3). May not be repeated for credit.

ANTHRCUL 439. Economic Anthropology and Development
Junior standing or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.
ANTHRCUL 440. Environmental Anthropology
Junior standing or above. (3). May not be repeated for credit.
ANTHRCUL 446 / WOMENSTD 446. Sex and the City: Urban Geography and Sexual Locations At least one course in Anthropology, History, Women's Studies, Sociology, LGBTQ Studies, or Urban Studies/Urban Planning. (3). May not be repeated for credit.

ANTHRCUL 447. Culture, Racism, and Human Nature
(3). (R\&E). May not be repeated for credit.

ANTHRCUL 450. Anthropologies of Insurgency: Bandits, Rebels and Freedom Fighters
(3). May not be repeated for credit.

## ANTHRCUL 451 / AAS 459. African-American Religion

One introductory course in the social sciences. AAS 201 recommended. (3). May not be repeated for credit.

## ANTHRCUL 453 / AAS 454. African-American Culture

One introductory course in the social sciences. AAS 201 recommended. (3). May not be repeated for credit.

ANTHRCUL 458. Topics in Sociocultural and Linguistic Anthropology Consent of instructor required. Junior and above. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

ANTHRCUL 461 / AMCULT 461 / LING 461 / NATIVEAM 461. Language, Culture, and Society in Native North America
(3). May not be repeated for credit.

ANTHRCUL 471 / LING 471. Face-to-Face Interaction
(3). May not be repeated for credit.

ANTHRCUL 473 / LING 473. Ethnopoetics: Cross-Cultural Approaches to Verbal Art
Two courses in anthropology, linguistics, or literature or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.

ANTHRCUL 474. Language, Ethnicity, and Nationalism
Upperclass standing. (3). May not be repeated for credit.
ANTHRCUL 499. Undergraduate Reading and Research in Anthropology
Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

May be elected more than once in the same term. A maximum of three credits of independent reading may be included in a concentration plan in Anthropology. F, W, Sp/Su, Sp, Su.

## ANTHRCUL 519 / GERMAN 517 / LING 517. Principles and Methods of Historical Linguistics

Graduate standing, or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.

## ANTHRCUL 553. Blurred Genres: Autobiography, Fiction \& Ethnography

400-level coursework in Anthropology, Graduate standing, and permission of instructor. (3). May not be repeated for credit.

ANTHRCUL 572 / LING 542. Introduction to Sociolinguistics
LING 411 or graduate standing. (3; 2 in the half-term). May not be repeated for credit.

## Courses in LSA Applied Physics

Applied Physics (APPPHYS)
APPPHYS 530 / EECS 530. Electromagnetic Theory I
PHYSICS 438 or EECS 330. (3). (BS). May not be repeated for credit. F.
APPPHYS 540 / EECS 540. Applied Quantum Mechanics
Permission of instructor. (3). (BS). May not be repeated for credit.
APPPHYS 541 / EECS 541. Applied Quantum Mechanics II
APPPHYS 540. (3). (BS). May not be repeated for credit. W.
APPPHYS 672 / NERS 572. Plasma and Controlled Fusion II
NERS 571. (3). (BS). May not be repeated for credit.

## Courses in LSA Asian Languages \& Cultures

Asian Studies (ASIAN)
ASIAN 200 / HISTORY 203. Introduction to Japanese Civilization
(4). (HU). May not be repeated for credit.

ASIAN 201. Society and Culture in Contemporary Japan
(4; 3 in the half-term). (SS). May not be repeated for credit.
ASIAN 204 / HISTORY 204. East Asia: Early Transformations
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
ASIAN 205 / HISTORY 205. Modern East Asia
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
ASIAN 206 / HISTORY 206. Indian Civilization
(4; 3 in the half-term). (HU). May not be repeated for credit.
ASIAN 207 / HISTORY 207. Southeast Asian Civilization
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
ASIAN 210 / HISTORY 219. The Philippines: Culture and History
(3). (HU). (R\&E). May not be repeated for credit.

ASIAN 219. Warrior Saints: Introduction to Sikhism
(3). (ID). May not be repeated for credit.

ASIAN 220 / RELIGION 202. Introduction to the Study of Asian Religions
(4). (HU). May not be repeated for credit.

ASIAN 222. Great Books of Japan
A knowledge of Japanese is not required. (4). (HU). May not be repeated for credit. Taught in English. W (in odd years).

ASIAN 223 / RELIGION 223. Krishna Speaks: Bhagavad-Gita
(3). (HU). May not be repeated for credit.

ASIAN 225 / RELIGION 225. Introduction to Hinduism: Origins and Development of Classical Hinduism
(3). (HU). May not be repeated for credit.

ASIAN 230 / PHIL 230 / RELIGION 230. Introduction to Buddhism
(4). (HU). May not be repeated for credit. May not be included in a concentration plan in Philosophy.

ASIAN 231 / RELIGION 231. Introduction to Tibetan Buddhism
(4). (HU). May not be repeated for credit.

ASIAN 232 / AMCULT 234. Zen Masters, Dharma Bums, and Drag Queens: Buddhism in America (3). (HU). May not be repeated for credit.

ASIAN 234 / RELIGION 234. Buddhism and Death
(3). (HU). May not be repeated for credit.

ASIAN 235. Introduction to Asian Studies
(4). (HU). May not be repeated for credit. Taught in English.

ASIAN 241 / HISTORY 251. The Chinese Renaissance: Cultural Transformations in Eleventh-Century China
(3). (ID). May not be repeated for credit.

ASIAN 243 / HISTART 243. Introduction to South Asian Art
(3). (HU). May not be repeated for credit.

ASIAN 244. Seeds of Conflict: Intercultural Encounters in Japan from 745-1945
(3). (HU). May not be repeated for credit.

ASIAN 248 / HISTORY 248 / RELIGION 248. Jesus Comes to Asia: Conversion and its Consequences in Asia
(4). (HU). (R\&E). May not be repeated for credit.

ASIAN 251. Undergraduate Seminar in Chinese Culture
No knowledge of Chinese language is required. (3). (HU). May not be repeated for credit.
ASIAN 252. Undergraduate Seminar in Japanese Culture
No knowledge of Japanese language is required. (3). (HU). May be elected twice for credit.
ASIAN 254. Undergraduate Seminar in Korean Culture
No knowledge of Korean language is required. (3). (HU). May be repeated for a maximum of 6 credits.
ASIAN 255. Undergraduate Seminar in Asian Studies
(3). (HU). May be elected twice for credit. May be elected more than once in the same term.

ASIAN 257. Great Cities in Asia
(4). (HU). May not be repeated for credit.

ASIAN 258. Food and Drink of Asia
(4). (HU). May not be repeated for credit.

ASIAN 259 / HISTORY 255. The History of Modern South Asia
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
ASIAN 260 / HISTORY 252. Introduction to Chinese Civilization
(4). (HU). (R\&E). May not be repeated for credit. No assumed knowledge of Chinese history, culture, or language required.

ASIAN 261. Introduction to Modern Chinese Culture
No knowledge of Chinese required. (4). (HU). May not be repeated for credit. Taught in English.
ASIAN 263 / PHIL 263. Introduction to Chinese Philosophy
(3). (HU). May not be repeated for credit.

ASIAN 264. Looking at Traditional China Through its Most Famous Novel, The Story of the Stone (3). (HU). May not be repeated for credit.

ASIAN 273. North Korea: Real and Imagined (4). (ID). May not be repeated for credit.

ASIAN 274 / HISTORY 249. Introduction to Korean Civilization
(3). (HU). May not be repeated for credit.

ASIAN 275 / HISTORY 288. India Calling: Culture and Society in Contemporary India (3). (HU). May not be repeated for credit.

ASIAN 276 / AMCULT 276. India as Imaginary Homeland: an Introduction to Cultural Constructions of National Identity
(3). (HU). (R\&E). May not be repeated for credit.

ASIAN 280. Topics in Asian Studies
(3). (HU). May be elected twice for credit.

ASIAN 282 / RCHUMS 283 / SAC 282. Asia Goes Viral: Asian Pop Culture in the Age of Social Media (4). (ID). May not be repeated for credit.

ASIAN 283. The Martial Arts in East Asia: Sport, Nationalism, and the Invention of Tradition (4). (HU). May not be repeated for credit.

ASIAN 285 / WOMENSTD 285. Love and Intimacy in Asia
(3). (SS). May not be repeated for credit.

ASIAN 292 / HISTART 292. Introduction to Japanese Art and Culture
(4). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in HISTART 495.

ASIAN 297. Mini Course in Asian Studies
(1-3). (HU). May be elected three times for credit.
ASIAN 300. Love and Death in Japanese Culture
A knowledge of Japanese is not required. (3). (HU). May not be repeated for credit.
ASIAN 302. Rewriting Identities in Modern Japan
Knowledge of Japanese is not required. (3). (HU). May not be repeated for credit.
ASIAN 303 / RELIGION 303. Religious Military Orders of the World
(3). (HU). May not be repeated for credit.

ASIAN 304 / HISTART 304. The Art of Yoga
(3). (ID). May not be repeated for credit.

ASIAN 305 / RELIGION 305. Religion and Violence in the Secular World
(3). (HU). May not be repeated for credit.

ASIAN 307 / HISTORY 308 / RELIGION 307. Eat, Pray, Love: Devotional Traditions in South Asia ASIAN 220 or 225. (3). (HU). May not be repeated for credit.

ASIAN 308 / RCHUMS 308. Arts and Ideas of Modern South and Southeast Asia (3). (HU). (R\&E). May not be repeated for credit.

ASIAN 311. The Image of the Samurai
(3). (HU). May not be repeated for credit.

ASIAN 312. After Defeat: The Cultural History of Postwar Japan
(3). (HU). May not be repeated for credit.

ASIAN 314. Strange Ways: Literature of the Supernatural in Pre-modern Japan and China (3). (HU). May not be repeated for credit.

ASIAN 316. Controversies in Contemporary Japan
(3). (ID). May not be repeated for credit.

ASIAN 318. Humanities Topics in Japan through Popular Culture
At least one previous course on Japan. Students are not permitted to elect the same topic twice. (3). (HU). May be elected twice for credit. May be elected more than once in the same term.

ASIAN 319 / RELIGION 319. Spirits of Contemporary Japan in Popular Culture
ASIAN 200. (3). (HU). May not be repeated for credit.
ASIAN 320. Japanese Performance Culture
(3). (HU). May not be repeated for credit.

ASIAN 321. Make it New: Modernism and Modern Life in Japan
(3). (HU). May not be repeated for credit.

ASIAN 324 / HISTORY 325 / MEMS 325 / NEAREAST 375 / RELIGION 325. The History of Islam in South Asia
(4). (HU). (R\&E). May not be repeated for credit.

ASIAN 325 / RELIGION 323. Zen: History, Culture, and Critique
(4). (HU). May not be repeated for credit.

ASIAN 326. Introduction to Japanese Buddhism
ASIAN 230. (3). May not be repeated for credit.
ASIAN 329. Violence and Nonviolence in the Buddhist Traditions of Asia
(3). (HU). May not be repeated for credit.

ASIAN 331 / PHIL 331 / RELIGION 331. Introduction to Indian Philosophy
One introductory course on Hinduism or Buddhism. (3). May not be repeated for credit.
ASIAN 332. South Asian Identity: Writing Home from Away
(3). (HU). May not be repeated for credit.

ASIAN 334. Patterns of Prejudice: Race, Caste, and Religion in India and the United States (3). (ID). May not be repeated for credit.

ASIAN 335 / HISTART 305. Himalayas: An Aesthetic Exploration
Undergraduate and graduate students seeking to enroll for this course should have completed at least one course on the arts/languages/religions of South/Central/East Asia. (3). (HU). May not be repeated for credit.

ASIAN 336. Controversies in Contemporary India
(3). (ID). May not be repeated for credit.

ASIAN 337 / RELIGION 337. The Ramayana: Text and Context in an Indian Epic
ASIAN 220 or ASIAN 206. (3). (HU). May not be repeated for credit.
ASIAN 340 / HISTORY 340 / MENAS 340 / NEAREAST 340 / REEES 340. From Genghis Khan to the Taliban: Modern Central Asia
(4; 3-4 in the half-term). (SS). (R\&E). May not be repeated for credit.
ASIAN 342 / WOMENSTD 332. Gender and Power in Southeast Asia
(3). (HU). May not be repeated for credit.

ASIAN 343. Southeast Asian Politics through the Arts
(3). (ID). May not be repeated for credit.

ASIAN 345 / AAS 345 / RCSSCI 346. Genocide and Trauma in Southeast Asia, Africa, and Europe in the Twentieth Century
(3). (HU). May not be repeated for credit.

ASIAN 346. Controversies in Contemporary Southeast Asia
Previous knowledge of Southeast Asia is preferred. (3). (ID). May not be repeated for credit.
ASIAN 350 / RELIGION 351. Gods, Ghosts, and Gangsters: Popular Religion in China
(3). (HU). May not be repeated for credit.

ASIAN 352 / WOMENSTD 352. Gender, Sexuality, and Power in Premodern China
At least one course in Asian studies or Women's studies. (3). (HU). May not be repeated for credit.
ASIAN 353. Globalizing China: From Ancient Wisdom to World Literature
(3). (HU). May not be repeated for credit.

ASIAN 354 / HISTORY 354. War, Rebellion and Revolution in China Through Two Centuries (4; 3 in the half-term). (SS). May not be repeated for credit.

ASIAN 355. Revolution in Life: How Communism Changed China
(3). (ID). May not be repeated for credit.

ASIAN 356 / RCHUMS 374. Contemporary Chinese Performance Culture
(3). (HU). May not be repeated for credit.

ASIAN 358. Art of War
At least one Asian studies course. (3). (HU). May not be repeated for credit.
ASIAN 359. Crime and Detection in Chinese Literature
(3). (HU). May not be repeated for credit.

ASIAN 362. The Travels of the Monkey King in China and Abroad
(3). (HU). May not be repeated for credit.

ASIAN 363. Chinese Drama and Theater
(3). (HU). May not be repeated for credit.

ASIAN 364. The Development of Chinese Fiction
(3). (HU). May not be repeated for credit.

ASIAN 365 / CLCIV 339 / HISTORY 339. Doctors in the Ancient World: China, Greece, and Rome (3). (HU). May not be repeated for credit.

## ASIAN 366. Controversies in Contemporary China

ASIAN 260 or ASIAN 261. (3). (ID). May not be repeated for credit.

## ASIAN 367 / LING 367. Languages of Asia

(3). (HU). May not be repeated for credit.

ASIAN 368 / LING 368. How Different is Chinese?
(3). (HU). May not be repeated for credit.

## ASIAN 369. Chinese Film

(3). (HU). May not be repeated for credit.

ASIAN 370. Acupuncture: Historical and Contemporary Transformations
(3). (ID). May not be repeated for credit.

ASIAN 373 / RCHUMS 373. The Performing Arts in South and Southeast Asia
(3). (HU). May not be repeated for credit.

ASIAN 374. Korean War in Fiction and Film
(3). (HU). May not be repeated for credit.

ASIAN 375. Modern Korean Literature
(3). (HU). May not be repeated for credit.

ASIAN 376. Controversies in Contemporary Korea
(3). (ID). May not be repeated for credit.

ASIAN 377. K-Pop and Beyond: Popular Culture and Korean Society
(3). (HU). May not be repeated for credit.

ASIAN 380. Topics in Asian Studies
(3). May be repeated for a maximum of 6 credits.

## ASIAN 381. Junior/Senior Research Seminar for Majors

At least one course in Asian Studies (ASIAN) with a minimum grade of C-. (Prerequisites enforced at registration.) Asian Studies majors with junior or senior standing. (3). May not be repeated for credit. W.

ASIAN 382. Approaches to Asian Studies
A minimum of two Asian studies courses. (3). (HU). May not be repeated for credit.

ASIAN 385. Love in Korean Literature and Cinema
(3). (HU). May not be repeated for credit.

ASIAN 387 / POLSCI 345 / RCSSCI 387. Hate in Asia: Cultures of Conflict and Reconciliation At least one course on the history, politics, or culture of Asia. (4). (ID). May not be repeated for credit.

ASIAN 388. Utopia and Dystopia in Korea
(3). (HU). May not be repeated for credit.

ASIAN 389 / POLSCI 388. Asian Business Culture
At least one Asian culture course on history, economics, politics, or popular culture. (4). (ID). May not be repeated for credit.

ASIAN 393 / HISTART 385. Human Rights in China from Classical Times through the 18th Century: a Historical and Cultural Survey
(3). (HU). May not be repeated for credit.

## ASIAN 395. Honors Thesis

Consent of instructor required. Honors candidate in Asian Studies. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## ASIAN 396. Asian Studies Internship Reflection Seminar

(1). May be elected twice for credit.

## ASIAN 397. Mini Course in Asian Studies

At least one course in Asian studies, especially on the topic addressed in the course. (1-3). (HU). May be elected three times for credit.

ASIAN 415 / HISTORY 415. Law and Society in Late Imperial and Modern China
Junior or senior standing. No prior knowledge of China or Chinese required. (3). May not be repeated for credit. Rackham credit requires additional work.

## ASIAN 416 / ANTHRCUL 417. Possessing Culture: Mediumship and Ethnography in Southeast Asia

Some coursework in cultural anthropology or Southeast Asian studies is useful, but not required. (3). May not be repeated for credit.

ASIAN 424 / HISTORY 424. Topics in Modern South Asian History
(3-4; 3 in the half-term). May be elected three times for credit. May be elected more than once in the same term. Rackham credit requires additional work.

ASIAN 428 / POLSCI 339. China's Evolution Under Communism
Upperclass standing. (4; 3 in the half-term). May not be repeated for credit.
ASIAN 430. Philosophy of the Sikh Gurus
(3). May not be repeated for credit.

ASIAN 440. National Cinema of Asia
(3). May be repeated for a maximum of 6 credits.

ASIAN 450 / HISTORY 450. Japan to 1700: Origin Myth to Shogun Dynasty
(3). May not be repeated for credit. Rackham credit requires additional work.

ASIAN 451 / HISTORY 451. Japan's Modern Transformations
(3). May not be repeated for credit.

ASIAN 457. Translating Korean Poetry: Theory and Practice
Third-year proficiency in Korean. (3). May not be repeated for credit.
ASIAN 458 / SAC 458. Film Culture in Korea
(3). May not be repeated for credit.

ASIAN 459 / SOC 427. Sociology of Contemporary Korea: Development, Globalization, and Identity (3). May not be repeated for credit.

## ASIAN 464 / HISTORY 470 / RELIGION 464. From Mystic Saints to Holy Warriors: Islam in Southeast Asia

(3). May not be repeated for credit. Rackham credit requires additional work.

ASIAN 465 / HISTART 466. Sacred Image/Sacred Place in Japanese Art
(3). May not be repeated for credit. Rackham credit requires additional work.

ASIAN 469 / HISTART 469. Modern Chinese Visual Culture
ASIAN 261. (3). May not be repeated for credit.
ASIAN 475. Japanese Cinema
A knowledge of JAPANESE is not required. (3). May not be repeated for credit.
ASIAN 480. Topics in Asian Studies
(3). May be elected four times for credit. May be elected more than once in the same term.

## ASIAN 484. Buddhist Tantra

ASIAN 230. (3). May not be repeated for credit.
ASIAN 485 / RELIGION 485. Religion in China
Consent of instructor required. ASIAN 230 or permission of instructor. (3). May be repeated for a maximum of 6 credits.

## ASIAN 490 / PUBPOL 428 / SOC 428. Contemporary China

One introductory course in sociology. (3). May not be repeated for credit. Rackham credit requires additional work.

ASIAN 494 / HISTART 495. Ocean of Stories: Telling Tales in the Indian Subcontinent
(3). May not be repeated for credit. Rackham credit requires additional work.

ASIAN 499. Independent Study-Directed Readings
Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. F, $w, S p / S u, S p, S u$.

ASIAN 527. History of Buddhist Studies
Graduate standing or permission of instructor. (3). May not be repeated for credit.

Asian Languages (ASIANLAN)

## ASIANLAN 100. Accelerated Elementary Chinese

Consent of instructor required. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 101, 103, or 104.

## ASIANLAN 101. First Year Chinese I

Native or near-native speakers of Chinese are not eligible for this course. (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 100, 102, 103, or 104.

## ASIANLAN 102. First Year Chinese II

ASIANLAN 100 or 101 with a minimum grade of C- or by Assignment of ASIANLAN 102 by Placement Test. (Prerequisites enforced at registration.) (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 103 or 104.

## ASIANLAN 103. Intensive First Year Chinese

Consent of instructor required. (10). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 100, 101, 102, or 104.

## ASIANLAN 104. First Year Chinese for Mandarin Speakers

Consent of instructor required. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 100, 101, 102, or 103.

## ASIANLAN 108. Chinese Calligraphy

ASIANLAN 100 or 101. (Prerequisites enforced at registration.) (2). May not be repeated for credit.

## ASIANLAN 111. First Year Filipino I

(4). May not be repeated for credit.

## ASIANLAN 112. First Year Filipino II

ASIANLAN 111 or by assignment of ASIANLAN 112 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. Filipino will serve as medium of instruction.

## ASIANLAN 115. First Year Hindi I

(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 117. Students with prior knowledge of Hindi are encouraged to take ASIANLAN 118.

## ASIANLAN 116. First Year Hindi II

ASIANLAN 115 or by assignment of ASIANLAN 116 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 117.

## ASIANLAN 121. First Year Indonesian I

(4). May not be repeated for credit.

## ASIANLAN 122. First Year Indonesian II

ASIANLAN 121 or by assignment of ASIANLAN 122 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 123. First-Year Japanese through Anime and Manga

Placement of ASIANLAN 123 on an exam given by the Japanese Language Program. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 125, ASIANLAN 126, ASIANLAN 127.

## ASIANLAN 124. First-Year Japanese through Anime and Manga II

ASIANLAN 123. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 126 and ASIANLAN 127.

## ASIANLAN 125. First Year Japanese I

(5). May not be repeated for credit. Native or near-native speakers of Japanese are not eligible for this course. No credit granted to those who have completed or are enrolled in ASIANLAN 123, 124, 127, 129 or RCLANG 196.

## ASIANLAN 126. First Year Japanese II

(ASIANLAN 123 or 125) or by Assignment of ASIANLAN 126 by Placement Test. (Prerequisites enforced at registration.) (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 124, 127, or 129 or RCLANG 196.

ASIANLAN 127. Intensive First Year Japanese
Permission of instructor. (10). May not be repeated for credit. No credit granted to those who have competed or are enrolled in ASIANLAN 124, 125, 126, or 129 or RCLANG 196.

ASIANLAN 128. Mastering the Basics of Kanji: Learning Strategies and Orthography One of ASIANLAN 126, 127, or 129 or RCLANG 196, completed with a minimum grade of C- or better. (Prerequisites enforced at registration.) (2). May not be repeated for credit.

## ASIANLAN 129. Intensive Japanese I

Consent of instructor required. (10). May not be repeated for credit. No credit granted for students who have completed or are enrolled in ASIANLAN 125, 126 or 127.

## ASIANLAN 135. First Year Korean I

(5). May not be repeated for credit. Native or near-native speakers of Korean are not eligible for this course. No credit granted to those who have completed or are enrolled in ASIANLAN 137.

## ASIANLAN 136. First Year Korean II

ASIANLAN 135 or by assignment of ASIANLAN 136 by Placement Test. (Prerequisites enforced at registration.) (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 137.

## ASIANLAN 138. Reading and Writing Korean I

Assignment of ASIANLAN 138 by Placement Test. Consent of instructor required. (Prerequisites enforced at registration.) (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 135, 136, or 137.

## ASIANLAN 145. First Year Punjabi I

(4). May not be repeated for credit.

## ASIANLAN 146. First Year Punjabi II

ASIANLAN 145 or by assignment of ASIANLAN 146 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 151. First Year Sanskrit I

(4). May not be repeated for credit.

## ASIANLAN 152. First Year Sanskrit II

ASIANLAN 151. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SSEA 369.

## ASIANLAN 161. First Year Thai I

(4). May not be repeated for credit.

## ASIANLAN 162. First Year Thai II

ASIANLAN 161 or by assignment of ASIANLAN 162 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 165. First Year Tibetan I

(4). May not be repeated for credit. Graduate students should elect BUDDHST 501.

## ASIANLAN 166. First Year Tibetan II

ASIANLAN 165 or by assignment of ASIANLAN 166 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. Graduate students should elect BUDDHST 502.

## ASIANLAN 171. First Year Urdu I

(4). May not be repeated for credit.

## ASIANLAN 172. First Year Urdu II

ASIANLAN 171 or by assignment of ASIANLAN 172 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 175. First Year Vietnamese I

(4). May not be repeated for credit.

## ASIANLAN 176. First Year Vietnamese II

ASIANLAN 175 or by assignment of ASIANLAN 176 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 185. First Year Bengali I

(4). May not be repeated for credit.

## ASIANLAN 186. First Year Bengali II

ASIANLAN 185 or permission of instructor. (4). May not be repeated for credit.

## ASIANLAN 201. Second Year Chinese I

(ASIANLAN 102 or 103) or by Assignment of ASIANLAN 201 by Placement Test. (Prerequisites enforced at registration.) Native or near-native speakers of Chinese are not eligible for this course. (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 203. Students who are native or near-native Mandarin Chinese speakers are not eligible for this course.

## ASIANLAN 202. Second Year Chinese II

ASIANLAN 201 with a minimum grade of C- or by Assignment of ASIANLAN 202 by Placement Test. (Prerequisites enforced at registration.) (5). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 203. Students who are native or nearnative Mandarin Chinese speakers are not eligible for this course.

## ASIANLAN 203. Intensive Second Year Chinese

ASIANLAN 102 or 103. (Prerequisites enforced at registration.) (10). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 201 or 202.

## ASIANLAN 204. Second Year Chinese for Mandarin Speakers

ASIANLAN 104. Those who have not taken ASIANLAN 104 must take the placement test in order to register for this course. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 201, 202, or 203. conducted in Chinese.

## ASIANLAN 211. Second Year Filipino I

ASIANLAN 112 or by assignment of ASIANLAN 211 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 212. Second Year Filipino II

ASIANLAN 211 or by assignment of ASIANLAN 212 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 215. Second Year Hindi I

ASIANLAN 116 or 117 or 118 or by assignment of ASIANLAN 215 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 217.

## ASIANLAN 216. Second Year Hindi II

ASIANLAN 215 or by assignment of ASIANLAN 216 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 217.

## ASIANLAN 221. Second Year Indonesian I

ASIANLAN 122; or by assignment of ASIANLAN 221 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 222. Second Year Indonesian II

ASIANLAN 221 or by assignment of ASIANLAN 222 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 225. Second Year Japanese I

One of: ASIANLAN 124, 126, 127, or 129 or RCLANG 196; or by assignment of ASIANLAN 225 by placement test. (Prerequisites enforced at registration.) Native or near-native speakers of Japanese are not eligible for this course. (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 227 or 229 or RCLANG 296.

## ASIANLAN 226. Second Year Japanese II

ASIANLAN 225; or assignment of ASIANLAN 226 by Placement Test. (Prerequisites enforced at registration.) (5). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 227 or 229 or RCLANG 296.

## ASIANLAN 227. Intensive Second Year Japanese

ASIANLAN 126 or 127 or 129 or RCLANG 196. (Prerequisites enforced at registration.) (10). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 225 or 226 or 229 or RCLANG 296.

## ASIANLAN 229. Intensive Japanese II

Consent of instructor required. ASIANLAN 129 or RCLANG 196. Students must have completed the firstyear Japanese at the University of Michigan or have equivalent proficiency. (10). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 225, 226, and 227.

## ASIANLAN 235. Second Year Korean I

ASIANLAN 136 or 137 or by assignment of ASIANLAN 235 by Placement Test. (Prerequisites enforced at registration.) Native or near-native speakers of Korean are not eligible for this course. (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 237 or 238.

## ASIANLAN 236. Second Year Korean II

ASIANLAN 235 or by assignment of ASIANLAN 236 by Placement Test. (Prerequisites enforced at registration.) (5). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 237.

## ASIANLAN 238. Reading and Writing Korean II

ASIANLAN 138 or by assignment of ASIANLAN 238 by Placement Test. (Prerequisites enforced at registration.) (5). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 235, 236, or 237.

## ASIANLAN 245. Second Year Punjabi I

ASIANLAN 146 or by assignment of ASIANLAN 245 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SSEA 372.

## ASIANLAN 246. Second Year Punjabi II

ASIANLAN 245 or by assignment of ASIANLAN 246 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SSEA 372.

## ASIANLAN 251. Second Year Sanskrit I

ASIANLAN 152. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 252. Second Year Sanskrit II

ASIANLAN 251. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 261. Second Year Thai I

ASIANLAN 162, or by assignment of ASIANLAN 261 by placement test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 262. Second Year Thai II

ASIANLAN 261 or by assignment of ASIANLAN 262 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 265. Second Year Tibetan I

ASIANLAN 166 or by assignment of ASIANLAN 265 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 266. Second Year Tibetan II

ASIANLAN 265 or by assignment of ASIANLAN 266 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 271. Second Year Urdu I

ASIANLAN 172 or by assignment of ASIANLAN 271 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. F.

## ASIANLAN 272. Second Year Urdu II

ASIANLAN 271 or by assignment of ASIANLAN 272 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 275. Second Year Vietnamese I

ASIANLAN 176 or by assignment of ASIANLAN 275 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 276. Second Year Vietnamese II

ASIANLAN 275 or by assignment of ASIANLAN 276 by Placement Test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit.

## ASIANLAN 285. Second Year Bengali I

ASIANLAN 186 or permission of instructor. (4). May not be repeated for credit.

## ASIANLAN 301. Third Year Chinese I

(ASIANLAN 202 or 203) or by Assignment of ASIANLAN 301 by Placement Test. (Prerequisites enforced at registration.) (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 303 or 304.

## ASIANLAN 302. Third Year Chinese II

ASIANLAN 301 or by Assignment of ASIANLAN 302 by Placement Test. (Prerequisites enforced at registration.) (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 303 or 304.

## ASIANLAN 304. Third Year Chinese for Mandarin Speakers

ASIANLAN 204 or by Assignment of ASIANLAN 304 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. Taught in Chinese.

## ASIANLAN 305. Intermediate Spoken Chinese I

ASIANLAN 202 or 203; or by assignment of ASIANLAN 305 by Placement Test. (Prerequisites enforced at registration.) (2). May be elected twice for credit.

## ASIANLAN 306. Intermediate Spoken Chinese II

(ASIANLAN 202 or 203 or 305) or by Assignment of ASIANLAN 306 by Placement Test. (Prerequisites enforced at registration.) (2). May not be repeated for credit. Native or near-native speakers of Mandarin can not earn credit for this course.

## ASIANLAN 309. Media Chinese I

(ASIANLAN 301 or 304) or by Assignment of ASIANLAN 309 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 325. Third Year Japanese I

One of: ASIANLAN 226 or 227 or ASIANLAN 229 or RCLANG 296; or by assignment of ASIANLAN 325 by placement test. (Prerequisites enforced at registration.) Native or near-native speakers of Japanese are not eligible for this course. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 327.

## ASIANLAN 326. Third Year Japanese II

ASIANLAN 325 or by Assignment of ASIANLAN 326 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 327 (or JAPANESE 411).

## ASIANLAN 335. Third Year Korean I

ASIANLAN 236, 238 or 237; or Equivalent language proficiency from the most recent Korean Placement Test. (Prerequisites enforced at registration.) Native or near-native speakers of Korean are not eligible for this course. (4). May not be repeated for credit.

## ASIANLAN 336. Third Year Korean II

ASIANLAN 335. (Prerequisites enforced at registration.) (4). May not be repeated for credit. Students with previous experience with Korean should contact the instructor for placement into the course.

## ASIANLAN 400. Advanced Spoken Chinese

ASIANLAN 302. (Prerequisites enforced at registration.) (2). May not be repeated for credit.

## ASIANLAN 401. Fourth Year Chinese I

(ASIANLAN 302 or 303 or 304) or by Assignment of ASIANLAN 401 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 402. Fourth-Year Chinese II

ASIANLAN 401 or by Assignment of ASIANLAN 402 by Placement Test. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 405. Business Chinese I

ASIANLAN 302, 303, or 304; or by assignment of ASIANLAN 405 by Placement Test. (Prerequisites enforced at registration.) Third year proficiency in Chinese or permission of instructor. (3). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 406. Business Chinese II

ASIANLAN 405, by assignment of ASIANLAN 406 by Placement Test, or by permission of instructor. (Prerequisites enforced at registration.) ASIANLAN 302 or 303 or 304. (3). May not be repeated for credit. Conducted in Chinese.

## ASIANLAN 407. Advanced Readings in Modern Chinese

ASIANLAN 302 or 303 or 304 or by assignment of ASIANLAN 407 by Placement Test. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

ASIANLAN 408. Chinese Translation and Presentation
ASIANLAN 407 or by assignment of ASIANLAN 408 by Placement Test. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Conducted in Chinese.

## ASIANLAN 409. Classical Chinese in Modern Context

ASIANLAN 302 or 304. (3). May not be repeated for credit. Conducted in Chinese.

## ASIANLAN 411. Advanced Filipino I

ASIANLAN 212, or by assignment of ASIANLAN 411 by placement test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 412. Advanced Filipino I

ASIANLAN 411 or by assignment of ASIANLAN 412 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 417. Advanced Hindi I

ASIANLAN 216 or 217 or by assignment of ASIANLAN 417 by Placement. (Prerequisites enforced at registration.) (3). May be elected twice for credit. F. Rackham credit requires additional work.

## ASIANLAN 418. Advanced Hindi II

ASIANLAN 417 or by assignment of ASIANLAN 418 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. W. Rackham credit requires additional work.

## ASIANLAN 419. Advanced Indonesian I

ASIANLAN 222, or by assignment of ASIANLAN 419 by placement test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 420. Advanced Indonesian II

ASIANLAN 419 or by assignment of ASIANLAN 420 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 423. Javanese I

Permission of instructor. (4). May not be repeated for credit.

## ASIANLAN 425. Media Japanese I

ASIANLAN 326 or 327. (Prerequisites enforced at registration.) ASIANLAN 326 with B- or above or pass a placement test. (3). May not be repeated for credit.

## ASIANLAN 426. Advanced Spoken Japanese

ASIANLAN 326. (Prerequisites enforced at registration.) (2). May not be repeated for credit.

## ASIANLAN 429. Japanese Through Business and Social Topics I

ASIANLAN 326 or 327. (Prerequisites enforced at registration.) ASIANLAN 326 with B- or above or pass a placement test. (3). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 430. Japanese Through Business and Social Topics II

ASIANLAN 429. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 433. Classical Japanese I

ASIANLAN 226 or 227. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ASIANLAN 436. Advanced Spoken Korean

ASIANLAN 336. (Prerequisites enforced at registration.) (2). May not be repeated for credit.

## ASIANLAN 438. Media Korean

ASIANLAN 336 or permission of instructor. Consent of instructor required. (Prerequisites enforced at registration.) Minimum of Third-Year proficiency in Korean. (3). May not be repeated for credit.

## ASIANLAN 439. Academic Japanese I

ASIANLAN 326 with A- or above or pass a placement test. Students must also have mastery of over 1500 kanji and a solid foundation in grammar and reading. (2). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 440. Academic Japanese II

ASIANLAN 439 with A- or above. (2). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 441. Practicum in Japanese Translation (Hon'yaku jisshu)

ASIANLAN 326 completed with a minimum grade of $B+$ or better. (Prerequisites enforced at registration.) ASIANLAN 326 with a minimum grade of B+ or permission of instructor. For non-native speakers of Japanese: JLPT N2, Placement test, and/or knowledge of 800 kanji. For non--native speakers of English: TOEFL IBT 100 or above. (3). May be elected twice for credit.

## ASIANLAN 445. Chinese Language Pedagogy

ASIANLAN 402 or 4th year proficiency. (3). May not be repeated for credit.

## ASIANLAN 450. Japanese Pedagogy I

4th year proficiency in Japanese Language. (3). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 461. Advanced Thai I

ASIANLAN 262, or by assignment of ASIANLAN 461 by placement test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 462. Advanced Thai II

ASIANLAN 461 or by assignment of ASIANLAN 462 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 464. Advanced Tibetan II

ASIANLAN 463. (Prerequisites enforced at registration.) ASIANLAN 365. (3). May not be repeated for credit. Rackham credit requires additional work.

## ASIANLAN 469. Advanced Classical Tibetan I

ASIANLAN 468 or by assignment of ASIANLAN 469 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## ASIANLAN 470. Advanced Classical Tibetan II

ASIANLAN 469 or by assignment of ASIANLAN 470 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## ASIANLAN 471. Advanced Urdu I

ASIANLAN 272 or by assignment of ASIANLAN 471 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 472. Advanced Urdu II

ASIANLAN 471 or by assignment of ASIANLAN 472 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. W. Rackham credit requires additional work.

## ASIANLAN 475. Advanced Vietnamese I

ASIANLAN 276 or by assignment of ASIANLAN 475 by Placement Test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 476. Advanced Vietnamese II

ASIANLAN 475, or by assignment of ASIANLAN 476 by placement test. (Prerequisites enforced at registration.) (3). May be elected twice for credit. Rackham credit requires additional work.

## ASIANLAN 480. Topics in Asian Languages

Minimum of two years or fourth-term proficiency in the target language. Students should not elect the same topic twice. (2-4). May be elected three times for credit. May be elected more than once in the same term.

ASIANLAN 499. Independent Language Study
Permission of Instructor. (1-5). (INDEPENDENT). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

## Courses in LSA Astronomy

Astronomy (ASTRO)
ASTRO 101. Introductory Astronomy: The Solar System and the Search for Life Beyond Earth
A basic high school math and science background. (4). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 115. F, W.

## ASTRO 102. Introductory Astronomy: Stars, Galaxies, and the Universe

A basic high school math and science background. (4). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those enrolled in or have completed ASTRO 104, ASTRO 142, or ASTRO 201. F, W.

## ASTRO 104. Alien Skies: A Tour Through the Universe

(3). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those enrolled in or have completed ASTRO 102, 142, or 201.

## ASTRO 105. The Cosmos Through the Constellations

(3). (NS). (BS). (QR/2). May not be repeated for credit.

## ASTRO 106. Aliens

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 115.

## ASTRO 115. Introductory Astrobiology: The Search for Life in the Universe

Basic high school math and science background. (3). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 101.

## ASTRO 120. Frontiers of Astronomy

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 102, 112, 125 or 160. F.

## ASTRO 127. Naked Eye Astronomy

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 105 or ASTRO 188.

## ASTRO 142. From the Big Bang to the Milky Way

(3). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those who have completed or are enrolled in: ASTRO 102, 104, or 201; or PHYSICS 112.

## ASTRO 183 / SPACE 103. Introduction to Space Weather

(3). May not be repeated for credit. (non-LSA credit).

## ASTRO 201. Introduction to Astrophysics

Calculus and physics at the high school or university level is strongly recommended. (4). (NS). (BS).
(QR/1). May not be repeated for credit.

## ASTRO 206. Black Holes: The Triumph of Gravity

Any one of : PHYSICS 135, 139, 140 or 160. (Prerequisites enforced at registration.) 3 credits of any

Astronomy course, with the exception of ASTRO 183 and ASTRO 261. (3). (NS). (BS). (QR/1). May not be repeated for credit.

## ASTRO 210. New Discoveries with Magellan Observatory

Any one of: ASTRO 101, 102, 104, 105/188, 115, 142, 201. (Prerequisites enforced at registration.) (3). (NS). (BS). (QR/2). May not be repeated for credit.

## ASTRO 220. New Discoveries in Astronomy

Any one of: PHYSICS 112, ASTRO 101, 102, 104, 105, 115, 142, or 201. (Prerequisites enforced at registration.) (3). (NS). (BS). (QR/2). May be repeated for a maximum of 6 credits. Credit granted for a combined total of 6 credits in ASTRO 220 and ASTRO 420.

## ASTRO 255 / EARTH 255. Earth and Space Sciences for Elementary School Educators

High school mathematics and physics recommended. (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 101 or 115, or EARTH 171(or GEOSCI 171) or AOSS 171 or BIOLOGY 110 or ENSCEN 171 or ENVIRON 110.

## ASTRO 261 / NAVSCI 301. Navigation

(3). (BS). May not be repeated for credit. F.

ASTRO 300 / HISTORY 300. The Beginning and The End: A History of Cosmology
(3). (ID). May not be repeated for credit.

## ASTRO 301 / HISTORY 301. Discovery of the Universe

(3). (ID). May not be repeated for credit.

## ASTRO 305. Astronomy in the Community

Consent of instructor required. At least 3 credits in Astronomy. (1-3). (BS). (EXPERIENTIAL). May be repeated for a maximum of 9 credits.

## ASTRO 361. Astronomical Techniques

ASTRO 201 or permission of instructor. (4). (BS). May not be repeated for credit. F.

## ASTRO 389. Individual Studies in Astronomy

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for credit.

## ASTRO 399. Introduction to Research

Consent of instructor required. (1-3). (BS). (INDEPENDENT). May be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## ASTRO 402. Stellar Astrophysics

MATH 216, and prior or concurrent enrollment in PHYSICS 340. (3). (BS). May not be repeated for credit. F.

## ASTRO 404. Galaxies and the Universe

MATH 216 and prior or concurrent enrollment in PHYSICS 340. (3). (BS). May not be repeated for credit. W.

## ASTRO 405. High Energy Astrophysics

MATH 216 and prior or concurrent enrollment in PHYSICS 340 and PHYSICS 390. (3). (BS). May not be repeated for credit. W.

## ASTRO 406. Computational Astrophysics

MATH 216, prior or concurrent enrollment in PHYSICS 240 (or 260), and some knowledge of programming. (3). (BS). May not be repeated for credit. F.

## ASTRO 420. New Discoveries in Astronomy for Advanced Students

ASTRO 201, and one of: PHYSICS 140, 160, or 123. (Prerequisites enforced at registration.) (3). (BS). May be repeated for a maximum of 6 credits. Credit granted for a combined total of 6 credits in ASTRO 220 and ASTRO 420.

ASTRO 429. Scientific Writing and Communication in Astronomy
ASTRO 201. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## ASTRO 461. Ground-Based Observatories

Consent of department required. ASTRO 201 and ASTRO 361. (3 in the half-term). (BS). May not be repeated for credit. Sp. (Kitt Peak National Observatory, Arizona).

## Courses in LSA Biology

Biology (BIOLOGY)

## BIOLOGY 100. Biology for Nonscientists

Some exposure to biology and chemistry at the high school level is assumed. (4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. Not open to those with Advanced Placement or "Departmental" credit in biology, nor to those majoring in the biological sciences. F.

## BIOLOGY 101 / ENVIRON 101. Food, Energy, and Environmental Justice

(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. F.

BIOLOGY 102. Practical Botany
(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. $W$.

## BIOLOGY 105. Biology of Nutrition

(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. F.

## BIOLOGY 106 / CHEM 106. Quantitative Reasoning in Biological Sciences

MATH 103 or MATH 105 (corequisite). (3 in the half-term). (NS). (BS). (QR/1). May not be repeated for credit.

## BIOLOGY 107. Evolution of Life

Some exposure to biology at the high school level is assumed. (3). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology.

BIOLOGY 108. Introduction to Animal Diversity
(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. $W$.

## BIOLOGY 109. Ecological Knowledge and Environmental Problem Solving

(3). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. $W$.

## BIOLOGY 110 / AOSS 171 / EARTH 171 / ENSCEN 171 / ENVIRON 110 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability

(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. Satisfies the geography requirement for State of Michigan certification for social studies teachers. F.

## BIOLOGY 116. Biology of Sex

(3). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology.

## BIOLOGY 118. AIDS and Other Health Crises

(3). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. W.

## BIOLOGY 120. First Year Seminar in Biology

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology.

BIOLOGY 121. Topics in Biology
(1-4). (NS). (BS). May be elected four times for credit. May be elected more than once in the same term.

## BIOLOGY 125. Biotechnology and Society

A high school level course in biology. (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RCNSCI 270. Credit is granted for a combined total of 17 credits elected in introductory biology.

## BIOLOGY 130. Animal Behavior

(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. F.

## BIOLOGY 144. Decoding Your DNA: Implications for You and Society

(3). (NS). (BS). May not be repeated for credit.

## BIOLOGY 171. Introductory Biology: Ecology and Evolution

(4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed BIOLOGY 162 or 163 or 195. Credit is granted for a combined total of 17 credits elected in introductory biology. BIOLOGY 171 and 172 can be taken in either order.

BIOLOGY 172. Introductory Biology - Molecular, Cellular, and Developmental Prior or concurrent enrollment in CHEM 130. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLOGY 162, 163, 174, or 195. Credit is granted for a combined total of 17 credits elected in introductory biology. BIOLOGY 171 and 172 can be taken in either order.

## BIOLOGY 173. Introductory Biology Laboratory

BIOLOGY 163 or 171 or 172 or 174 or 195. (Prerequisites enforced at registration.) Students should have completed one of the introductory lecture courses [either BIOLOGY 171 or (172 or 174)] and be concurrently enrolled in the other. (2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed BIOLOGY 162. Credit is granted for a combined total of 17 credits elected in introductory biology.

## BIOLOGY 174. Introduction to Cell and Molecular Biology

Prior or concurrent enrollment in CHEM 130. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLOGY 172 or 195. Credit is granted for a combined total of 17 credits elected in introductory biology.

## BIOLOGY 200. Undergraduate Tutorial

Consent of instructor required. Permission of faculty member in biology. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits. $F, W, S p / S u, S p, S u$.

## BIOLOGY 201. Intermediate Topics in Biology

BIOLOGY 171, 172/74, or 195. (3). (NS). (BS). May be elected three times for credit. May be elected more than once in the same term.

## BIOLOGY 202. Mathematics of Life: Introduction to Quantitative Biology

MATH 115 or equivalent (MATH 120, 156, or 185). (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit.

## BIOLOGY 205. Developmental Biology

BIOLOGY 162 or 163; or BIOLOGY 171 and either 172 or 174; or BIOLOGY 195. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

BIOLOGY 207. Introductory Microbiology
BIOLOGY 171, (172 or 174), \& 173, or BIOLOGY 195 \& 173; AND CHEM 210. (Prerequisites enforced at registration.) (4). (NS). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement. $F$ and $W$.

## BIOLOGY 212. Plants and Human Health

BIOLOGY 171 \& 172/174, or BIOLOGY 195. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLOGY 230.

BIOLOGY 225. Principles of Animal Physiology and Neurobiology
BIOLOGY 171 and (172 or 174); or BIOLOGY 195. (Prerequisites enforced at registration.) Prior or concurrent enrollment in CHEM 210. (3). (NS). (BS). May not be repeated for credit. F and W.

## BIOLOGY 226. Animal Physiology Laboratory

BIOLOGY 173. (Prerequisites enforced at registration.) Prior or concurrent enrollment in BIOLOGY 225. (2). (NS). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement or an elective requirement in most biology majors and minors. F, W.

## BIOLOGY 230. Introduction to Plant Biology

BIOLOGY 171, (172 or 174), \& 173; or BIOLOGY 195 \& 173. (4; 5 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLOGY 212. F; Sp/Su at the Biological Station. Satisfies a Biology laboratory requirement.

## BIOLOGY 232. Honors Core in Biology

Consent of department required. (4). (NS). (BS). May be elected twice for credit. May be elected more than once in the same term.

## BIOLOGY 241. Health, Biology, and Society: What is Cancer?

(4). (ID). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AMCULT 241.

## BIOLOGY 242. Honors Core Writing in Biology

Consent of department required. (4). (NS). (FYWR). (BS). May be elected twice for credit. May be elected more than once in the same term.

## BIOLOGY 252. Vertebrate Evolution and Diversity

BIOLOGY 171, (172 or 174), \& 173 or BIOLOGY 195 \& 173. (4). (BS). May not be repeated for credit.
Satisfies a Biology laboratory requirement. F.

## BIOLOGY 255 / ENVIRON 255. Plant Diversity

(4). (NS). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## BIOLOGY 256. Environmental Physiology of Animals

BIOLOGY 171 \& 172 \& 173; or BIOLOGY 195 (AP) \& 173. (Prerequisites enforced at registration.) $A P$ Physics or PHYSICS 135, 140 or 160 or equivalent; and AP Math or MATH 115 or 116 or equivalent. (4). (NS). (BS). May not be repeated for credit.

## BIOLOGY 281 / ENVIRON 281. General Ecology

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND a laboratory course in CHEM (BIOLOGY 172 and 173 are strongly recommended). (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 381 or ENVIRON 381. F and W.

## BIOLOGY 288. Animal Diversity

BIOLOGY 171, (172 or 174), \& 173; or BIOLOGY 195 \& 173. (4). (NS). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## BIOLOGY 305. Genetics

BIOLOGY 162 or 163; or BIOLOGY 171 and either 172 or 174; or BIOLOGY 195. (Prerequisites enforced at registration.) Prior or concurrent enrollment in CHEM 210. (3). (BS). May not be repeated for credit. F, W, sp.

## Courses in LSA Biophysics

Biophysics (BIOPHYS)
BIOPHYS 116. Introduction to Medical Imaging
Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

BIOPHYS 117. Introduction to Programming in the Sciences
(3). (MSA). (BS). May not be repeated for credit.

BIOPHYS 120. The Discovery of the DNA Double Helix and its Hidden Mysteries
(3). (NS). (BS). (QR/1). May not be repeated for credit.

## BIOPHYS 130. DNA Origami

(3). (NS). (BS). May not be repeated for credit.

## BIOPHYS 280. Biophysics Undergraduate Research (UROP)

(1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. Credit is granted for a combined total of 8 credits in any UROP research courses.

BIOPHYS 290 / PHYSICS 290. Physics of the Body and Mind
PHYSICS 125 or 135 or 140 or 160. (Prerequisites enforced at registration.) MATH 115 or equivalent AP credits. (3). (NS). (BS). (QR/2). May not be repeated for credit.

BIOPHYS 370 / CHEM 370 / PHYSICS 370. Physical and Chemical Principles Behind Biology and Medicine
MATH 215; and PHYSICS 235 or 240. (Prerequisites enforced at registration.) CHEM 130 or placement in 210. (3). (NS). (BS). May not be repeated for credit. No credit granted to students who have completed or are enrolled in CHEM 260 or PHYSICS 390. F, W.

## BIOPHYS 399. Research in Biophysics

(1-4). (BS). (INDEPENDENT). May be repeated for a maximum of 8 credits.

## BIOPHYS 415. Directed Study

(1-4). (BS). (INDEPENDENT). May be elected twice for credit. May be elected more than once in the same term.

## BIOPHYS 417 / CHEM 417 / PHYSICS 417. Dynamical Processes in Biophysics

MATH 216 or 256 or 286 or 296 or 316; and BIOPHYS 370 or PHYSICS 340 or PHYSICS 360 or PHYSICS 370 or CHEM 463 or CHEM 370. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

BIOPHYS 433 / PHYSICS 433. Biocomplexity
BIOPHYS 417 or CHEM 417 or PHYSICS 417, or PHYSICS 406; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

BIOPHYS 435. Biophysical Modeling
BIOPHYS 417 or PHYSICS 417 or CHEM 417; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## BIOPHYS 440 / CHEM 440. Biophysics of Diseases

BIOPHYS 370 or CHEM 370 or PHYSICS 370. (3). (BS). May not be repeated for credit.
BIOPHYS 450 / PHYSICS 450. Laboratory Techniques in Biophysics
BIOPHYS 370 or CHEM 370 or PHYSICS 370; or PHYSICS 390; or CHEM 452 or BIOLCHEM 452; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

BIOPHYS 454 / CHEM 454. Biophysical Chemistry II: Macromolecular Structure and Dynamics CHEM 453 or 463, and CHEM 451/452 or equivalent. (3). (BS). May not be repeated for credit. W.

## BIOPHYS 463 / BIOINF 463 / MATH 463. Mathematical Modeling in Biology

MATH 214, 217, 417, or 419; and MATH 216, 256, 286, or 316. (3). (BS). May not be repeated for credit.

## BIOPHYS 495. Senior Seminar in Biophysics

BIOPHYS 450 or PHYSICS 450; or graduate standing. (Prerequisites enforced at registration.) (3). (BS).
May not be repeated for credit. Rackham credit requires additional work.

## BIOPHYS 498. Senior Thesis

BIOPHYS 399. (1-4). (BS). (INDEPENDENT). May not be repeated for credit.

## BIOPHYS 499. Honors Thesis

BIOPHYS 399. (1-4). (BS). (INDEPENDENT). May not be repeated for credit.

## BIOPHYS 520 / CHEM 520. Methods of Biophysical Chemistry

CHEM 463, BIOLCHEM 415, or CHEM 420; permission of course director. (3). (BS). May not be repeated for credit. F.

BIOPHYS 521 / CHEM 521. Principles of Biophysical Chemistry
CHEM 461, BIOLCHEM 415, and CHEM 430; and permission of course director. (3). (BS). May not be repeated for credit. W.

## Courses in LSA Chemistry

Chemistry (CHEM)
CHEM 100. Concepts in Chemistry
(1). (NS). (BS). May not be repeated for credit.

CHEM 105 / CLIMATE 105 / ENSCEN 105 / ENVIRON 105. Our Changing Atmosphere (3). (NS). (BS). May not be repeated for credit.

CHEM 106 / BIOLOGY 106. Quantitative Reasoning in Biological Sciences
MATH 103 or MATH 105 (corequisite). (3 in the half-term). (NS). (BS). (QR/1). May not be repeated for credit.

## CHEM 108 / EARTH 130 / PHYSICS 119. The Physical World

High-school algebra. (4). (NS). (BS). (QR/2). May not be repeated for credit.
CHEM 109 / PHYSICS 109. Natural Science: Bridging the Gaps
(3). (NS). (BS). May not be repeated for credit.

## CHEM 120. First Year Seminar in Chemistry

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## CHEM 125. General Chemistry Laboratory I

To be elected by students who are eligible for (or enrolled in) CHEM 130, and concurrent enrollment in CHEM 126. (1). (NS). (BS). May not be repeated for credit. F, W, Su.

## CHEM 126. General Chemistry Laboratory II

To be elected by students who are eligible for (or enrolled in) CHEM 130, and concurrent enrollment in CHEM 125. (1). (NS). (BS). May not be repeated for credit. F, W, Su.

## CHEM 130. General Chemistry: Macroscopic Investigations and Reaction Principles

Three years of high school math or MATH 105; one year of high school chemistry recommended. Placement by testing, or permission of Chemistry department. (3). (NS). (BS). (QR/2). May not be repeated for credit. Intended for students without AP credit in Chemistry. Neither CHEM 130, nor AP credits earned for CHEM 130, count toward the minors in Chemistry. F, W, Su.

## CHEM 210. Structure and Reactivity I

High school chemistry. Placement by examination during Orientation. To be taken with CHEM 211. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed CHEM 215. F, W, Su.

## CHEM 211. Investigations in Chemistry

To be taken concurrently with CHEM 210. (1). (NS). (BS). May not be repeated for credit. Students who have completed CHEM 216 will not receive credit for CHEM 211. F, W, Su.

## CHEM 215. Structure and Reactivity II

CHEM 210/211. To be taken with CHEM 216. (3). (NS). (BS). May not be repeated for credit. F, W, Sp.

## CHEM 216. Synthesis and Characterization of Organic Compounds

CHEM 210/211. Must be taken with CHEM 215. (2). (NS). (BS). May not be repeated for credit. F, W, Sp.

## CHEM 218. Independent Study in Biochemistry

Consent of instructor required. For students with less than junior standing. (1). (INDEPENDENT). May be repeated for a maximum of 4 credits. F, W, Sp/Su, Sp, Su.

## CHEM 219. Independent Study in Chemistry

Consent of instructor required. For students with less than junior standing. (1). (INDEPENDENT). May be repeated for a maximum of 4 credits. F, W, $S p / S u, S p, S u$.

## CHEM 220. Teaching Experience for Undergraduates

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 4 credits.

## CHEM 230. Physical Chemical Principles and Applications

CHEM 215/216. Students who plan to continue beyond a fourth term in Chemistry would typically enroll in CHEM 260/241/242 instead of CHEM 230; credit will not be given for both of these courses. (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 260. F, W, Sp.

## CHEM 241. Introduction to Chemical Analysis

Prior or concurrent enrollment in CHEM 230 or 260, and concurrent enrollment in CHEM 242. (2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 245. F, W.

CHEM 242. Introduction to Chemical Analysis Laboratory
Prior or concurrent enrollment in CHEM 230 or 260, and concurrent enrollment in CHEM 241. (2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 246 or CHEM 247. F, W.

## CHEM 245. Biomedical Analytical Chemistry

CHEM 130 or equivalent. CHEM 245 must be taken concurrently with the accompanying lecture/laboratory offerings, CHEM 246/247. (2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 241.

## CHEM 246. Biomedical Analytical Chemistry Laboratory I

CHEM 130 or equivalent. CHEM 246 (LEC/LAB) must be taken concurrently with CHEM 245 and CHEM 247. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 242.

## CHEM 247. Biomedical Analytical Chemistry Laboratory II

CHEM 130 or equivalent. CHEM 247 must be taken together with CHEM 245 and CHEM 246. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 242.

## CHEM 260. Chemical Principles

CHEM 210/211, MATH 115, and prior or concurrent enrollment in PHYSICS 135 or 140 or 160. (3). (NS). (BS). May not be repeated for credit. No credit granted for students who have completed or are enrolled in BIOPHYS 370. F, W, Sp.

## CHEM 261. Introduction to Quantum Chemistry

CHEM 215/216, MATH 115, and prior or concurrent enrollment in PHYSICS 140 (or 160). CHEM 261 is intended primarily for Chemical Engineering students. (1). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 260. CHEM 261 is intended for Chemical Engineering students only. F, W, Sp.

CHEM 262. Mathematical Methods for Physical Scientists
MATH 115 and 116. (4). (MSA). (BS). (QR/1). May not be repeated for credit.
CHEM 290. Sophomore Seminar
CHEM 210. (3). (NS). (BS). May not be repeated for credit.
CHEM 302. Inorganic Chemistry: Molecules, Materials and Applications in Energy
CHEM 210/211 or 215/216. (3). (NS). (BS). May not be repeated for credit. A student can receive credit for only one of CHEM 302 or CHEM 303. F, W.

CHEM 303. Introductory Bioinorganic Chemistry: The Role of Metals in Life
CHEM 210/211 or 215/216. (3). (NS). (BS). May not be repeated for credit. A student can receive credit for only one of CHEM 302 or CHEM 303.

CHEM 351. Fundamentals of Biochemistry
Completion of BIOLOGY 172 or equivalent; CHEM 210 and completion or concurrent in CHEM 215. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MCDB 310 or BIOLCHEM 415. F, W.

CHEM 352. Introduction to Biochemical Research Techniques
Current or prior enrollment in CHEM 351. (2). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 353. F, W.

CHEM 353. Introduction to Biochemical Research Techniques and Scientific Writing (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 352.

## CHEM 370 / BIOPHYS 370 / PHYSICS 370. Physical and Chemical Principles Behind Biology and Medicine

MATH 215; and PHYSICS 235 or 240. (Prerequisites enforced at registration.) CHEM 130 or placement in 210. (3). (NS). (BS). May not be repeated for credit. No credit granted to students who have completed or are enrolled in CHEM 260 or PHYSICS 390. F, W.

CHEM 398. Undergraduate Research in Biochemistry
Consent of instructor required. Junior standing, and permission of a Biochemistry concentration advisor and the professor who will supervise the research. (1-4). (BS). (INDEPENDENT). May be repeated for a maximum of 4 credits. F, $W, S p / S u, S p, S u$.

CHEM 399. Undergraduate Research
Consent of instructor required. Junior standing, and permission of a chemistry concentration advisor and the professor who will supervise the research. (1-4). (BS). (INDEPENDENT). May be repeated for a maximum of 4 credits. $F, W, S p / S u, S p, S u$.

CHEM 402. Intermediate Inorganic Chemistry
CHEM 302 or CHEM 303, and 461/462. (3). (BS). May not be repeated for credit. F.
CHEM 415. Responsible Conduct in Chemical Research
(1). May be elected twice for credit. May be elected more than once in the same term.

CHEM 417 / BIOPHYS 417 / PHYSICS 417. Dynamical Processes in Biophysics
MATH 216 or 256 or 286 or 296 or 316; and BIOPHYS 370 or PHYSICS 340 or PHYSICS 360 or PHYSICS 370 or CHEM 463 or CHEM 370. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## CHEM 419. Intermediate Physical Organic Chemistry

CHEM 210 and CHEM 215. (3). (BS). May not be repeated for credit.
CHEM 420. Intermediate Organic Chemistry
CHEM 215 and 216 or their equivalents. (3). (BS). May not be repeated for credit.
CHEM 425. Special Topics in Organic Chemistry
CHEM 215. (3). (BS). May not be repeated for credit.
CHEM 436. Polymer Synthesis and Characterization
CHEM 260. (3). (BS). May not be repeated for credit. W odd years.

## CHEM 440 / BIOPHYS 440. Biophysics of Diseases

BIOPHYS 370 or CHEM 370 or PHYSICS 370. (3). (BS). May not be repeated for credit.
CHEM 447. Physical Methods of Analysis
CHEM 260 or 370 and 241/242. (3). (BS). May not be repeated for credit. F, W.
CHEM 451 / BIOLCHEM 451. Advanced Biochemistry: Macromolecular Structure and Function CHEM 215, 260, 351 and BIOLOGY 171 or 172. (4). (BS). May not be repeated for credit. F.

CHEM 452 / BIOLCHEM 452. Advanced Biochemistry: Cellular Processes
CHEM 351 or MCDB 310 or BIOLCHEM 415, (completed with a minimum grade of $C$ - or better). Consent of instructor required. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. W.

CHEM 453. Biophysical Chemistry I: Thermodynamics and Kinetics
CHEM 260 (or CHEM 261 and CHEM 330), CHEM 451, PHYSICS 240, and MATH 215 or CHEM 262. (3).
(BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 463. F.

CHEM 454 / BIOPHYS 454. Biophysical Chemistry II: Macromolecular Structure and Dynamics CHEM 453 or 463, and CHEM 451/452 or equivalent. (3). (BS). May not be repeated for credit. W.

CHEM 455. Special Topics in Biochemistry - Nucleic Acids
CHEM 351, BIOLCHEM 415, MCDB 310 (or equivalent). (3). (BS). May not be repeated for credit.
CHEM 461. Physical Chemistry I
CHEM 260 or 370 or BIOPHYS 370 or PHYSICS 370; and PHYSICS 240 or 235; and MATH 215 or CHEM 262. Should be elected concurrently with CHEM 462. (3). (BS). May not be repeated for credit. F.

## CHEM 462. Computational Chemistry Laboratory

MATH 215, and prior or concurrent enrollment in CHEM 461. (1). (BS). May not be repeated for credit. F.

## CHEM 463. Physical Chemistry II

CHEM 461/462. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in CHEM 453. W.

CHEM 465. Special Topics in Physical Chemistry
CHEM 461 or equivalent course in quantum mechanics, CHEM 262 or MATH 215/216 or equivalent. (3). (BS). May not be repeated for credit.

CHEM 467 / CLIMATE 467 / EARTH 465 / ENSCEN 467 / ENVIRON 467. Biogeochemical Cycles
MATH 116, CHEM 210, and PHYSICS 240 (or 260). (3). (BS). May not be repeated for credit. F, W.
CHEM 474. Environmental Chemistry
CHEM 260 and (CHEM 241 or CHEM 245). (3). (BS). May not be repeated for credit.

## CHEM 482. Synthesis and Characterization

CHEM 215/216. Prior or concurrent enrollment in CHEM 302 or CHEM 303. (3). (BS). May not be repeated for credit.

## CHEM 483. Advanced Methods in Physical Analysis

CHEM 447 and 461/462; and concurrent enrollment in CHEM 463. (3). (BS). May not be repeated for credit.

## CHEM 495. Communication in the Natural Sciences

CHEM 461. (2). (BS). May not be repeated for credit. W.

## CHEM 498. Undergraduate Honors Thesis in Biochemistry

Consent of instructor required. CHEM 398 and permission of instructor. (1). (BS). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. To be elected in the term in which an Honors student presents a thesis.

## CHEM 499. Undergraduate Thesis

Consent of instructor required. CHEM 399 and permission of instructor. (1). (BS). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. To be elected in the term in which an Honors student presents a thesis.

## CHEM 507. Inorganic Chemistry

CHEM 461. (3). (BS). May not be repeated for credit. F.

## CHEM 511 / MATSCIE 510. Materials Chemistry

CHEM 461, BIOLCHEM 415, CHEM 430; and permission of course director. (3). (BS). May not be repeated for credit.

## CHEM 520 / BIOPHYS 520. Methods of Biophysical Chemistry

CHEM 463, BIOLCHEM 415, or CHEM 420; permission of course director. (3). (BS). May not be repeated for credit.

## CHEM 521 / BIOPHYS 521. Principles of Biophysical Chemistry

CHEM 461, BIOLCHEM 415, and CHEM 430; and permission of course director. (3). (BS). May not be repeated for credit.

## CHEM 538 / MACROMOL 538. Organic Chemistry of Macromolecules

CHEM 215/216, and CHEM 230 or 260. (3). (BS). May not be repeated for credit. W.

## CHEM 540. Organic Principles

CHEM 312 and 461. (3). (BS). May not be repeated for credit.

## CHEM 541. Advanced Organic Chemistry

CHEM 540. (3). (BS). May not be repeated for credit. W.
CHEM 542. Applications of Physical Methods to Organic Chemistry
CHEM 260, 241/242, and 312. (3). (BS). May not be repeated for credit.
CHEM 570. Molecular Physical Chemistry
(3). (BS). May not be repeated for credit.

CHEM 575. Chemical Thermodynamics
CHEM 461. (3). (BS). May not be repeated for credit.
CHEM 580. Molecular Spectra and Structure
CHEM 570 or permission of instructor. (3). (BS). May not be repeated for credit. W.

## CHEM 673 / BIOLCHEM 673. Kinetics and Mechanism

BIOLCHEM 550, CHEMBIO 501, or equivalent, undergrad calculus. Physical Chemistry is recommended.
(2). (BS). May not be repeated for credit.

## Courses in LSA Classical Studies

Classical Archaeology (CLARCH)
CLARCH 103. Great Discoveries in Archaeology
(3). (HU). May not be repeated for credit.

CLARCH 104. Ancient Cities
(3-4). (HU). May not be repeated for credit.
CLARCH 220 / HISTART 220. Great Buildings of Ancient Greece and Rome
(4; 3 in the half-term). (HU). May not be repeated for credit.
CLARCH 221 / HISTART 221. Introduction to Greek Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit. F.
CLARCH 222 / HISTART 222. Introduction to Roman Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit. W.
CLARCH 223 / CLCIV 223. Greeks and Barbarian
(4). (HU). (R\&E). May not be repeated for credit.

CLARCH 323. Introduction to Field Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit.
CLARCH 327 / CLCIV 327 / NEAREAST 355 / RELIGION 326. Jews in the Roman Mediterranean: Archaeology, Religion, and Culture
(3). (ID). May not be repeated for credit.

CLARCH 350. Topics in Classical Archaeology
CLARCH 221, 222, or 323. (3). (HU). May be repeated for a maximum of 12 credits.
CLARCH 375 / GREEKMOD 375. Archaeology \& the Public: Archaeology \& Heritage in a Globalized World
(3). (HU). May not be repeated for credit.

CLARCH 380 / HISTART 380. Minoan and Mycenaean Archaeology
Consent of instructor required. Upperclass standing, CLARCH/HISTART 221 and 222, and permission of instructor. (3). May not be repeated for credit.

CLARCH 382 / CLCIV 382. Food in the Ancient World: Subsistence and Symbol
(3). (HU). May not be repeated for credit.

CLARCH 389 / CLCIV 379 / HISTART 389. Pompeii
(3-4). (HU). May not be repeated for credit.
CLARCH 420 / HISTART 430. Greece before History: The Art and Archaeology of Greek Lands ca 3500 to 700 BCE
(3). May not be repeated for credit.

CLARCH 424 / HISTART 424. Archaeology of the Roman Provinces
Upperclass standing, and CLARCH/HISTART 221 or 222. (3). May not be repeated for credit.
CLARCH 425. Hellenistic and Republican Roman Architecture
CLARCH 222. (3). May not be repeated for credit. Rackham credit requires additional work.
CLARCH 426. Roman Imperial Architecture
CLARCH 222/HISTART 222. (3). May not be repeated for credit. Rackham credit requires additional work.
CLARCH 433 / HISTART 433. Greek Sculpture
Upperclass standing, some preparation in Classical Civilization, Classical Archaeology or History of Art. (3; 2 in the half-term). May not be repeated for credit. Rackham credit requires additional work.

CLARCH 435 / HISTART 435. The Art and Archaeology of Asia Minor
Upperclass standing. (3). May not be repeated for credit.
CLARCH 439 / HISTART 439. Greek Vase Painting
Upperclass standing. (3; 2 in the half-term). May not be repeated for credit.
CLARCH 440 / HISTART 440. Cities and Sanctuaries of Classical Greece
Upperclass standing, and a course in archaeology. (3; 2 in the half-term). May not be repeated for credit.

## CLARCH 481 / HISTART 481. Art of Ancient Iran

Upperclass standing and HISTART 101 or 222. (3). May not be repeated for credit. Rackham credit requires additional work.

CLARCH 482. Ceramic Analysis
(3). May not be repeated for credit. Rackham credit requires additional work.

CLARCH 495. Senior Honors Research
Consent of instructor required. Upperclass standing. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## CLARCH 496. Practicum in Museum Studies

Junior or seniors, or permission of instructor. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits.

## CLARCH 497. Practicum in Field Archaeology

Junior or seniors. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits.

## CLARCH 499. Supervised Reading

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for credit. May be elected more than once in the same term. $F, W, S p, S u$.

## CLARCH 534 / HISTART 534. Ancient Painting

Upperclass standing, HISTART 101 and either HISTART/CLARCH 221 or 222. (3). May not be repeated for credit. Rackham credit requires additional work.

CLARCH 536 / HISTART 536. Hellenistic and Roman Sculpture
HISTART 101; one of CLARCH 221 or 222 or HISTART 221 or 222; and Upperclass standing. (3). May not be repeated for credit. Rackham credit requires additional work.
(V)Classical Civilization (CLCIV)

## CLCIV 101. Classical Civilization I: The Ancient Greek World (in English)

(4). (FYWR). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GTBOOKS 191 or 201. F.

## CLCIV 102. Classical Civilization II: The Ancient Roman World (in English)

(4). (HU). May not be repeated for credit. W.

## CLCIV 120. First-year Seminar in Classical Civilization (Humanities)

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May be repeated for a maximum of 6 credits.

## CLCIV 121. First-year Seminar in Classical Civilization (Composition)

Enrollment restricted to first-year students, including those with sophomore standing. (4). (FYWR). May not be repeated for credit.

## CLCIV 125. Mini Course in Classical Civilization

(1). (HU). May be repeated for a maximum of 3 credits. May be elected more than once in the same term.

CLCIV 126. From Humanitas to Humanities
(1). (HU). May not be repeated for credit.

CLCIV 157 / PHIL 157. Introduction to Ancient Philosophy
(3). (HU). May not be repeated for credit.

CLCIV 217. Minicourse on the Origins of Medical Terminology
(1). May not be repeated for credit.

CLCIV 220. Music in the Ancient World
CLCIV 101 or CLCIV 102. (3). (HU). May not be repeated for credit.
CLCIV 223 / CLARCH 223. Greeks and Barbarian
(4). (HU). (R\&E). May not be repeated for credit.

CLCIV 253. The Mediterranean: Classical Studies
(3). (HU). May not be repeated for credit.

## CLCIV 257 / HISTORY 257 / JUDAIC 257. Ancient Law

(3). (HU). May not be repeated for credit.

CLCIV 277 / ENVIRON 277 / HISTORY 277. Environmental History of the Ancient Mediterranean (3). (HU). May not be repeated for credit.

CLCIV 302 / HISTORY 302. The Roman Republic
(4). (HU). May not be repeated for credit.

CLCIV 303 / HISTORY 303 / WOMENSTD 303. Roman Women
(3). (HU). May not be repeated for credit.

## CLCIV 327 / CLARCH 327 / NEAREAST 355 / RELIGION 326. Jews in the Roman Mediterranean:

Archaeology, Religion, and Culture
(3). (ID). May not be repeated for credit.

CLCIV 328. Ancient Languages and Scripts
(3). (HU). May not be repeated for credit.

CLCIV 339 / ASIAN 365 / HISTORY 339. Doctors in the Ancient World: China, Greece, and Rome (3). (HU). May not be repeated for credit.

## CLCIV 342. Sexuality and Sexual Stereotype in Greek and Roman Culture

(3-4). (HU). May not be repeated for credit.
CLCIV 345. Slavery and Ethnicity in the Ancient World
Junior standing; general familiarity with American history. (3). (HU). (R\&E). May not be repeated for credit.

## CLCIV 350. Topics in Classical Civilization

CLCIV 101 and 102. (3). (HU). May be repeated for a maximum of 6 credits.
CLCIV 371. Sport in the Ancient Greek World
(4). (HU). May not be repeated for credit.

CLCIV 372. Sports and Daily Life in Ancient Rome
(4; 3 in the half-term). (HU). May not be repeated for credit.
CLCIV 375. War in Greek and Roman Civilization
(4). (HU). May not be repeated for credit.

## CLCIV 379 / CLARCH 389 / HISTART 389. Pompeii

(3-4). (HU). May not be repeated for credit.

## CLCIV 380 / HISTORY 381 / JUDAIC 380 / RELIGION 382. Ancient Jewish History to 638 CE: From

 Israelite Origins to Islamic Conquest(3). (ID). May not be repeated for credit. No credit granted for students who have taken both ACABS 322 and ACABS 326.

## CLCIV 381 / RELIGION 381. Magic and Witchcraft

(4). (HU). May not be repeated for credit.

CLCIV 382 / CLARCH 382. Food in the Ancient World: Subsistence and Symbol
(3). (HU). May not be repeated for credit.

## CLCIV 385. Greek Mythology

(4). (HU). May not be repeated for credit.

CLCIV 388 / PHIL 388. History of Philosophy: Ancient
One philosophy course with a grade of at least a C-. (Prerequisites enforced at registration.) Knowledge of Greek or Latin is not required. (4; 2 in the half-term). (HU). May not be repeated for credit.

## CLCIV 392. Ancient Medicine in Greece \& Rome

(4). (HU). May not be repeated for credit.

CLCIV 393. Plato's Dialogues in English
(3). (HU). May not be repeated for credit.

CLCIV 403 / POLSCI 403. Greek Political Thought
POLSCI 101 or 302. (3). May not be repeated for credit.
CLCIV 456. Egypt after the Pharaohs: Public and Private Life in an Ancient Multicultural Society CLCIV 101, or HISTORY 200 or 201, or an introductory class in Egyptian archaeology or history; or CLCIV 102, or CLARCH 221 or 222, or HISTART 221 or 222. (3). May not be repeated for credit.

## CLCIV 464. The Ancient Epic

(3; 2 in the half-term). May not be repeated for credit.

## CLCIV 466 / RELIGION 468. Greek Religion

(3; 2 in the half-term). May not be repeated for credit.

## CLCIV 469. Ancient Literary Criticism

Junior standing. (3; 2 in the half-term). May not be repeated for credit.
CLCIV 476 / HISTORY 405 / RELIGION 476. Pagans and Christians in the Roman World (4; 3 in the half-term). May not be repeated for credit.

## CLCIV 479. Socratic Tradition of Conscientious Objection

Consent of instructor required. Junior or Senior standing. (3). May not be repeated for credit.

## CLCIV 480. Studying Antiquity

Open only to majors in Classical Civilization, Classical Archaeology, Classical Language and Literature, Ancient Greek, Latin, and Modern Greek. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## CLCIV 483 / NEAREAST 437 / RELIGION 488. Christianity and Hellenistic Civilizations

(3). May not be repeated for credit.

## CLCIV 495. Senior Honors Research

Consent of instructor required. Upperclass standing. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## CLCIV 499. Supervised Reading

Permission of Instructor. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## Greek (GREEK)

GREEK 101. Elementary Greek
(4). May not be repeated for credit. Graduate students should elect GREEK 502. F.

GREEK 102. Elementary Greek
GREEK 101. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit
granted to those who have completed or are enrolled in GREEK 103 or 503. Graduate students should elect GREEK 503. W.

## GREEK 103. Intensive Elementary Greek I

(6). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GREEK 101 or 102, or any subsequent GREEK class. Graduate students should elect as GREEK 504.

## GREEK 301. Second-Year Greek

GREEK 102 or 103. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GREEK 507. The language requirement is satisfied with successful completion of both GREEK 301 AND 302. Graduate students should elect GREEK 507. F.

## GREEK 302. Second-Year Greek

GREEK 102 or 103. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GREEK 508. Graduate students should elect as GREEK 508. The language requirement is satisfied with successful completion of both GREEK 301 AND 302. W.

## GREEK 307 / NESLANG 307. The Synoptic Gospels: Matthew, Mark and Luke

 GREEK 101 and 102; and permission of instructor. (4). May not be repeated for credit. Taught in Greek. The language requirement is satisfied with successful completion of both GREEK 307 AND 308.
## GREEK 401. Readings in Classical Greek Prose

GREEK 302. (3). May be repeated for a maximum of 9 credits.

## GREEK 402. Greek Drama

GREEK 302. (3). May be repeated for a maximum of 9 credits. W.
GREEK 410. Elementary Greek Prose
GREEK 302. (3). May not be repeated for credit.

## GREEK 462. Plato: Republic

GREEK 401. (3). May be elected twice for credit.

## GREEK 463. Plato: Dialogues

GREEK 401. (3). May not be repeated for credit.

## GREEK 466. Polybius

(3). May not be repeated for credit. Rackham credit requires additional work.

## GREEK 470. Topics in Greek Literature

Consent of department required. (3). May be elected twice for credit. Rackham credit requires additional work.

## GREEK 473 / NESLANG 470. Advanced Koine

Two years of Greek, one term of New Testament Greek (300 level or equivalent). (3). May not be repeated for credit.

## GREEK 495. Senior Honors Research

Consent of instructor required. Upperclass standing. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## GREEK 499. Supervised Reading

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for credit. May not be included in a concentration plan in Greek Language and Literature or Classical Languages and Literatures. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. F, W, Sp, Su.

## GREEK 506. Advanced Greek Composition

GREEK 410. (3). May not be repeated for credit.
GREEK 556. Greek Philosophical Literature I
Graduate standing in Classical Studies or permission of instructor. (3). May not be repeated for credit.
Modern Greek (GREEKMOD)

## GREEKMOD 101. Elementary Modern Greek

(4). May not be repeated for credit. No credit granted to those who have completed GREEKMOD 500 or 501.

GREEKMOD 102. Elementary Modern Greek, II
GREEKMOD 101. (4). May not be repeated for credit. No credit granted to those who have completed GREEKMOD 500 or 502.

GREEKMOD 105. Elementary Modern Greek Conversation
GREEKMOD 101. (1). May be elected twice for credit. Offered mandatory credit/no credit.

## GREEKMOD 201. Second Year Modern Greek I

GREEKMOD 102. (4). May not be repeated for credit. No credit granted to those who have completed GREEKMOD 503.

## GREEKMOD 202. Second Year Modern Greek, II

GREEKMOD 201. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed GREEKMOD 504.

## GREEKMOD 205. Intermediate Modern Greek Conversation, I

GREEKMOD 201. (1). May be elected twice for credit. Offered mandatory credit/no credit.

## GREEKMOD 214. Introduction to Modern Greek Culture

(3). (SS). May not be repeated for credit.

## GREEKMOD 301. Intermediate Modern Greek I

GREEKMOD 202. (3). May not be repeated for credit. No credit granted to those who have completed GREEKMOD 505.

## GREEKMOD 302. Intermediate Modern Greek II

GREEKMOD 202. (3). May not be repeated for credit. No credit granted to those who have completed GREEKMOD 506.

GREEKMOD 305. Intermediate Modern Greek Conversation, II
GREEKMOD 301/302. (1). May be elected twice for credit. Offered mandatory credit/no credit.
GREEKMOD 318 / AMCULT 318. Greek-American Culture
(3). (R\&E). May not be repeated for credit.

GREEKMOD 325. Athens, Present and Past
(3). (HU). May not be repeated for credit.

GREEKMOD 340 / COMPLIT 340. Travels to Greece
(3). (HU). May not be repeated for credit.

GREEKMOD 350. Topics in Modern Greek
(3). (HU). May be elected twice for credit. May be elected more than once in the same term.

GREEKMOD 375 / CLARCH 375. Archaeology \& the Public: Archaeology \& Heritage in a Globalized World
(3). (HU). May not be repeated for credit.

GREEKMOD 399. Directed Study
Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit.
GREEKMOD 495. Senior Honors Research
Consent of instructor required. Junior or senior standing. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

GREEKMOD 499. Supervised Reading
Permission of instructor. (1-3). (INDEPENDENT). May be repeated for a maximum of 9 credits.
Great Books Program (GTBOOKS)

## GTBOOKS 191. Great Books

First-Year students in the Honors Program. (4). (HU). (FYWR). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GTBOOKS 201 or CLCIV 101.

## GTBOOKS 192. Great Books

Freshman honors program. (4). (HU). May not be repeated for credit. W.

## GTBOOKS 201. Great Books of the Ancient World

(4). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GTBOOKS 191 or CLCIV 101.

GTBOOKS 212 / COMPLIT 222. Great Books in World Literatures
(3). (HU). May not be repeated for credit.

GTBOOKS 246 / NEAREAST 219. Great Books of the Middle East (3). (HU). May not be repeated for credit.

GTBOOKS 331 / SPANISH 331. Great Books of Spain and Latin America Open to students at all levels. (3). (HU). May not be repeated for credit.

Latin (LATIN)

## LATIN 101. Elementary Latin

(4). May not be repeated for credit. Credit is granted for no more than two courses among LATIN 101, 102 and 103. No credit granted to those who have completed or are enrolled in LATIN 504.

## LATIN 102. Elementary Latin

LATIN 101. (Prerequisites enforced at registration.) Restricted by placement exam or permission of Elementary Latin Program coordinator. (4). May not be repeated for credit. Credit is granted for no more than two courses among LATIN 101, 102 and 103. No credit granted to those who have completed or are enrolled in LATIN 504.

## LATIN 103. Review Latin

Restricted by placement exam or permission of Elementary Latin Program coordinator. (4). May not be repeated for credit. Credit is granted for no more than two courses among LATIN 101, 102 and 103. No credit granted to those who have completed or are enrolled in LATIN 504.

## LATIN 195. Intensive Latin I

(8). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 101, 102, 103, or RCLANG 195.

## LATIN 231. Roman Kings and Emperors

LATIN 102, 103, or 195. (Prerequisites enforced at registration.) Restricted by placement exam or permission of Elementary Latin Program coordinator. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 295.

## LATIN 232. Vergil, Aeneid

LATIN 231. (Prerequisites enforced at registration.) Restricted by placement exam or permission of Elementary Latin Program coordinator. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 295.

## LATIN 233. Late Latin

LATIN 231. (Prerequisites enforced at registration.) Restricted by placement exam or permission of Elementary Latin Program coordinator. (4). (Lang Req). May not be repeated for credit.

## LATIN 295. Intensive Latin II

LATIN 102, 103, or 193/504, or RCLANG 195. (8). (Lang Req). May not be repeated for credit.

## LATIN 301. Intermediate Latin I

LATIN 194 or 232. (3; 2 in the half-term). (HU). May not be repeated for credit.

## LATIN 306. Popular Latin

One year of college Latin or equivalent (i.e., working knowledge of Latin grammar) or permission of instructor. (2). (HU). May not be repeated for credit. This course can be taken concurrently with LATIN 231/232/233. This course does not fulfill the language requirement. This course does not count towards a concentration/academic minor in Latin or Classical Languages and Literatures; it can be counted toward a Classical Civilization concentration or academic minor.

LATIN 325 / RCLANG 325. Readings in Latin Drama: From Text to Performance
One of RCLANG 295, LATIN 194, 195, 232, or 233, or permission of instructor. (4). May be elected twice for credit.

## LATIN 401. Republican Prose

LATIN 301 or 302 or permission of instructor. (3; 2 in the half-term). May be repeated for a maximum of 9 credits. F.

## LATIN 402. Imperial Prose

LATIN 301 or 302 or permission of instructor. (3; 2 in the half-term). May be repeated for a maximum of 9 credits. W.

## LATIN 403. Elementary Latin Composition

LATIN 301. (3). May not be repeated for credit.

## LATIN 409. Augustan Poetry

LATIN 301 or 302 or permission of instructor. (3; 2 in the half-term). May be repeated for a maximum of 9 credits.

LATIN 410. Poetry of the Republic or Later Empire
LATIN 301 or 302 or permission of instructor. (3; 2 in the half-term). May be repeated for a maximum of 9 credits. W.

## LATIN 421 / EDCURINS 421. Teaching of Latin

Junior standing in Latin and permission of instructor. (3; 2 in the half-term). May not be repeated for credit. F, W, Sp.

## LATIN 426. Practicum

Consent of instructor required. Junior or senior standing. (1). (EXPERIENTIAL). May be repeated for a maximum of 3 credits. F, W, Su. Offered mandatory credit/no credit.

## LATIN 435 / MEMS 440. Postclassical Latin I

Two years of college Latin. (3; 2 in the half-term). May not be repeated for credit.

## LATIN 436 / MEMS 441. Postclassical Latin II

Two years of college Latin. (3; 2 in the half-term). May not be repeated for credit.

## LATIN 441. Vergil, Aeneid

(3; 2 in the half-term). May not be repeated for credit.

## LATIN 442. Didactic Poetry

At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3). May not be repeated for credit. Rackham credit requires additional work.

## LATIN 443. Latin Elegy

At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 551. Rackham credit requires additional work.

## LATIN 444. Ovid

At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3; 2 in the half-term). May not be repeated for credit.

## LATIN 454. Roman Comedy

At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3). May not be repeated for credit. Rackham credit requires additional work.

## LATIN 463. Cicero Orations

At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 562.

LATIN 464. Cicero: Letters
At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 511.

LATIN 469. Augustine the Philosopher
LATIN 402. (3). May not be repeated for credit. Rackham credit requires additional work.
LATIN 471. Cicero: Philosophical Works
At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 558.

## LATIN 473. The Age of Nero

At least one intermediate LATIN course (LATIN 401, 402, 409, 410). (3; 2 in the half-term). May not be repeated for credit.

## LATIN 490. Martial and Roman Epigram

LATIN 301. (3). May not be repeated for credit.

## LATIN 495. Senior Honors Research

Consent of instructor required. Upperclass standing. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## LATIN 499. Latin: Supervised Reading

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for credit. May not be included in a concentration plan in Greek Language and Literature or Classical Languages and Literatures. F, W, Sp, Su.

## LATIN 504. Intensive Latin

Consent of instructor required. (6). May not be repeated for credit. No credit granted to those who have completed LATIN 102, 193, or 502. Sp.

## LATIN 506. Advanced Latin Composition

LATIN 403. (3). May not be repeated for credit. F.

## LATIN 599. Supervised Reading in Latin Literature

Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. F, W, Sp, Su.

## Courses in LSA Communication Studies

Communication Studies (COMM)

## COMM 101. The Mass Media

First- and second-year students. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

## COMM 102. Media Processes and Effects

First- and second-year students. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

## COMM 121. Quantitative Skills for Communication Studies

Freshman, sophomore or junior standing. (Prerequisites enforced at registration.) (4). (SS). (QR/1). May not be repeated for credit.

## COMM 122. Media Analysis: Concepts and Methods

Freshman, sophomore or junior standing. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

COMM 159. First-year Seminar in Media Issues
First-year students only. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit. Credits do not count toward the Communication Studies major requirements.

## COMM 251 / SAC 324. Understanding Media Industries

(4). (SS). May not be repeated for credit. No credit granted to those who have completed COMM 351.

COMM 261. Views on the News: What Shapes our Media Content
COMM 102 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) COMM 121 or COMM 211 strongly recommended. (4). (SS). May not be repeated for credit. No credit granted to those who have completed COMM 361.

## COMM 271. Communication Revolutions

COMM 101 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (4). (HU). May not be repeated for credit.

COMM 281. Media Psychology
COMM 102 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit. No credit granted to those who have completed COMM 381.

COMM 305. Survey of Media Topics
COMM 101 or COMM 102 completed with a minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 251, 261, 271 or 281 strongly recommended. (3-4). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

## COMM 313. Behind the Digital Screen

(4). May not be repeated for credit.

## COMM 315. Critical Approaches to the Internet

COMM 121 or COMM 211 strongly recommended. (4). May not be repeated for credit.

## COMM 317. Designing Persuasive Communication

COMM 261 or COMM 281 strongly recommended. (3). May not be repeated for credit. No credit granted to those who have completed COMM 462 or MKT 411.

## COMM 318 / PSYCH 318. Media and Violence

COMM 281 strongly recommended. (4). May not be repeated for credit. No credit granted to students who have completed COMM/PSYCH 481, Media \& Violence (Crse ID \#019987).

## COMM 321. Undergraduate Internship

Consent of instructor required. Junior standing, concentration in Communication Studies, and permission of instructor. Internship credit is not retroactive and must be prearranged. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. May not be used to satisfy Communication Studies electives in a Communication Studies major. Offered mandatory credit/no credit.

## COMM 322. Faculty Directed Undergraduate Research Practicum

Consent of instructor required. (1-3). May be repeated for a maximum of 6 credits. Maximum of 3 credits from COMM 322 and/or COMM 441/442 may be used toward the Communication Studies concentration requirements. A maximum of three credits from COMM 322, 441, or 442 may be counted toward the concentration requirements.

## COMM 325. Media and Globalization

COMM 101 with a minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 251 strongly recommended. (4). May not be repeated for credit.

## COMM 326 / AMCULT 326. American Magazines

(4; 3 in the half-term). (HU). May not be repeated for credit. No credit granted to students who have completed AMCULT 250.

## COMM 327. Media Economics

COMM 251 or COMM 261 strongly recommended. (3). May not be repeated for credit. No credit granted to those who have completed COMM 454.

## COMM 329 / POLSCI 329. Mass Media and Political Behavior

(4). (SS). May not be repeated for credit.

COMM 334 / AMCULT 334 / SAC 334. Race, Gender, Sexuality and U.S. Culture in Video Games (4; 3 in the half-term). May not be repeated for credit.

COMM 335. History of U.S. Broadcasting
Not available to students who have completed COMM 478 (Crse ID \#022064), Topic: History of Broadcasting and Television (Topic \#10). (Prerequisites enforced at registration.) COMM 251 strongly recommended. (4). May not be repeated for credit.

## COMM 347. Advertising and the New Media Environment

Not available to students who have completed COMM 468 (crse ID \#022063), Topic: Advertising and the New Media Environment (Topic ID \#10). (Prerequisites enforced at registration.) COMM 261 strongly recommended. (3). May not be repeated for credit.

## COMM 350. The Rise and Demise of Mass Culture

COMM 101 or 102 with minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 121 or COMM 211 strongly recommended. (4). May not be repeated for credit.

## COMM 362. Digital Media Foundations

COMM 121 or COMM 211 strongly recommended. (4). May not be repeated for credit.
COMM 365. Visual Culture and Visual Literacy
COMM 101, with a minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 102 and (COMM 121 or 211) strongly recommended. (4). May not be repeated for credit.

COMM 371. Media, Culture, and Society
COMM 101 or 102 with a minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 121 or COMM 211 strongly recommended. (4). May not be repeated for credit.

## COMM 380. Persuasion, Communication and Campaigns

COMM 102 with a minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 121 or COMM 211 strongly recommended. (4). May not be repeated for credit.

COMM 404. Special Topics in Mass Media and Mass Communication
COMM 251 or COMM 271 strongly recommended. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

COMM 405. Seminar in Mass Media and Mass Communication
COMM 251 or COMM 271 strongly recommended. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## COMM 408. Special Topics in Media Effects

COMM 261 or COMM 281 strongly recommended. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## COMM 409. Seminar in Media Effects

COMM 261 or COMM 281 strongly recommended. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## COMM 413 / ENVIRON 413. Environmental Communication

COMM 261, COMM 281 or ENVIRON 211 strongly recommended. (3). May not be repeated for credit.

## COMM 415. Communication, Identity and the Public Sphere

Not available to students who have completed COMM 479; Topic: Communication, Identity and the Public Sphere, (Taken prior to FA13). Short Description (appears on Wolverine Access): No credit in COMM 479;Topic 13. (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). May not be repeated for credit.

## COMM 418. Designing Web Research

COMM 271 or COMM 315 strongly recommended. (3). May not be repeated for credit.

## COMM 419. Seminar in Research Methods

(COMM 121 and 122) or COMM 211 strongly recommended. (3). May be repeated for a maximum of 6 credits.

## COMM 421. Media Law and Policy

COMM 251 strongly recommended. (3). May not be repeated for credit. No credit granted to those who have completed COMM 452.

## COMM 422. Social Media and Politics

Not available to students who have completed COMM 488; Topic: Social Media \& Politics (Taken prior to FA13). (Prerequisites enforced at registration.) COMM 261 or COMM 271 strongly recommended. (3). May not be repeated for credit.

## COMM 423. Computer Mediated Communication

COMM 101, COMM 102, and (COMM 122 or 211) strongly recommended. (3). May not be repeated for credit. No credit granted to those who have completed COMM 463.

## COMM 424. Race, Gender and New Media

COMM 271 and COMM 315 strongly recommended. (3). May not be repeated for credit.
COMM 425. Internet, Society and the Law
COMM 251 or COMM 271 strongly recommended. (3). May not be repeated for credit. No credit granted to those who have completed COMM 466.

## COMM 428. Gender, Media and the Law

Not available to students who have completed COMM 459 (crse ID\#19977), Topic: Gender and Law (Topic \#11). (Prerequisites enforced at registration.) COMM 251 or COMM 271 strongly recommended.
(3). May not be repeated for credit.

## COMM 431. Supreme Court News Coverage

COMM 261 strongly recommended. (3). May not be repeated for credit.

## COMM 432. Foreign News Coverage

COMM 261 strongly recommended. (3). May not be repeated for credit.

## COMM 435. Ethics Issues in Journalism

COMM 261 strongly recommended. (3). May not be repeated for credit. No credit granted to those who have completed COMM 451.

## COMM 439. Seminar in Journalistic Performance

COMM 261 strongly recommended. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## COMM 440. Global Iconic Events

COMM 101 with a minimum grade of C- or better. (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). May not be repeated for credit.

## COMM 441. Independent Reading

Consent of department required. (3-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. COMM 441 and 442 may be repeated for a combined total of eight credits. A maximum of 3 credits from COMM 322 and/or COMM 441/442 may be used toward the Communication Studies major requirements. Offered mandatory credit/no credit.

## COMM 442. Independent Research

Consent of department required. (3-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. COMM 441 and 442 may be repeated for a combined total of eight credits. A maximum of 3 credits from COMM 322 and/or COMM 441/442 may be used toward the Communication Studies major requirements. Offered mandatory credit/no credit.

COMM 443. LA, Bombay, Hong Kong: Cultural Industries in Transition
COMM 325 strongly recommended. (3). May not be repeated for credit.

## COMM 444. Race, Representation and the Media

Not available to students who have completed COMM 478 (crse ID \#022064), Topic: Race, Representation \& the Media, (Topic \#82). (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). (R\&E). May not be repeated for credit.

## COMM 445. Music and Mediated Identities

COMM 101 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) COMM 350 or 371 strongly recommended. (3). May not be repeated for credit.

## COMM 446. Reality and Television

Not available to students who have completed COMM 468 (crse ID \#022063), Topic: Television and Reality, (Topic \#12). (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). May not be repeated for credit.

COMM 447. Women and Islam: The Politics of Representation
COMM 371 strongly recommended. (3). May not be repeated for credit.

## COMM 448. Media and the Body

(3). May not be repeated for credit.

## COMM 455. Global Visual Cultures

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 371 or COMM 365 strongly recommended. (3). May not be repeated for credit. No more than 3 credits from Comm 450-490.

## COMM 456. Critical Issues in Television: The Post-Network Era

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 251 and COMM 271 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 457. Citizenship after Television

COMM 251 OR COMM 271 with a minimum grade of $C$ - or better. Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) (3). (R\&E). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 460. History of Technology and Modern Culture

COMM 271 with minimum grade of C- or better. Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 350 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 461. Visuality and the New Media

COMM 101 with C- or better. Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 365 strongly recommended. (3). May not be repeated for credit. No more than 3 credits from Comm 450-490.

## COMM 463. Communication and Political Representation

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 261 and COMM 329 strongly recommended. (3). May not be repeated for credit. No more than three credits from COMM 450-490.

## COMM 464. Social Consequences of Mobile Communication

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 251 and COMM 261 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 465. Health Communication and Health Behavior Change

COMM 281 completed with a minimum grade of C- or better. Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 380 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 466. Global Digital Politics

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 325 OR COMM 329 strongly recommended. (3). May not be repeated for credit. No more than 3 credits from Comm 450-490.

COMM 467. Debating Politics and Science: Science, News, Public Opinion and Policy
Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No more than three credits from COMM 450-490.

## COMM 469. Play and Technology

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No more than 3 credits from Comm 450-490.

## COMM 470. Telling Our Own Stories: Minority Self-Representation in the Media

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). (R\&E). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

COMM 475. Mass Media in the World
COMM 271 (completed with a minimum grade of C- or better). Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 325 or 350 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 477. The Mass Media and Celebrity Culture

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No more than three credits from COMM 450-490.

## COMM 480. Strategic and Persuasive Communication

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 281 and

COMM 380 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

COMM 482. Children and the Media
COMM 261 or COMM 281, completed with a minimum grade of C- or better. Declared Communication Studies Seniors ONLY. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 483. Media and Intergroup Conflict

Declared Communication Studies seniors ONLY. (Prerequisites enforced at registration.) COMM 281 strongly recommended. (3). May not be repeated for credit. No more than three credits from COMM 450-490.

## COMM 486. Afro-Asian Popular Culture

Declared Communication Studies Seniors ONLY. (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). (R\&E). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 487. African Americans in Popular Culture

Declared Communication Studies Seniors ONLY. (Prerequisites enforced at registration.) COMM 371 strongly recommended. (3). (R\&E). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

## COMM 490. Capstone Seminars in Media Topics

Declared Communication Studies Seniors ONLY. (Prerequisites enforced at registration.) COMM 251, COMM 261, COMM 271 or COMM 281 strongly recommended. (3). May not be repeated for credit. No more than three credits can be elected from COMM 450-490.

COMM 491. Senior Honors Seminar I
Consent of instructor required. STATS 250 (350) and admission to Honors. (3). May not be repeated for credit. No more than 3 credits of COMM 491-492 may be included in a Communication concentration plan. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term (COMM 492), the final grade is posted for both term's elections.

## COMM 492. Senior Honors Thesis

Consent of instructor required. COMM 491 and permission of instructor. (3). (INDEPENDENT). May not be repeated for credit. No more than three credits of COMM 491-492 may be included in a communication studies concentration plan.

## Courses in LSA Comparative Literature

Comparative Literature (COMPLIT)
COMPLIT 100. Global X
(3-4; 2-3 in the half-term). (HU). May be elected twice for credit.
COMPLIT 122. Writing World Literatures
(4). (FYWR). May not be repeated for credit.

## COMPLIT 140. First-Year Literary Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May be repeated for a maximum of 6 credits.

COMPLIT 141. Great Performances
(4). (HU). May not be repeated for credit.

COMPLIT 200. Translation Across Disciplines
(3). May not be repeated for credit.

## COMPLIT 222 / GTBOOKS 212. Great Books in World Literatures

(3). (HU). May not be repeated for credit.

## COMPLIT 240. Literature Across Borders

(3; 2 in the half-term). (HU). May not be repeated for credit. This course may be counted toward the International Studies subplan in Comparative Culture and Identity. F.

COMPLIT 241. Topics in Comparative Literature
COMPLIT 240. (3; 2 in the half-term). (HU). May not be repeated for credit. W.
COMPLIT 260. Europe and Its Others
(3). (HU). May not be repeated for credit.

COMPLIT 322. Translating World Literatures
(3). (HU). May not be repeated for credit.

## COMPLIT 340 / GREEKMOD 340. Travels to Greece

(3). (HU). May not be repeated for credit.

COMPLIT 350. The Text and Its Cultural Context
(3). (HU). May be repeated for a maximum of 6 credits.

## COMPLIT 364. Comparative Literary Movements and Periods

(3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

COMPLIT 372. Literature and Identity
(3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## COMPLIT 374. Literature and the Body

(3-4). (HU). May be repeated for a maximum of 6 credits.

## COMPLIT 376. Literature and Ideas

(3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## COMPLIT 382. Literature and the Other Arts

(3). (HU). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## COMPLIT 430. Comparative Studies in Fiction

Upperclass standing. (3; 2 in the half-term). May be repeated for a maximum of 9 credits.

## COMPLIT 434. Comparative Studies in Poetry

Junior standing. (3). May be repeated for a maximum of 6 credits.

## COMPLIT 438. Comparative Studies in Film

Junior standing. (3). May be repeated for a maximum of 6 credits.

## COMPLIT 490. Comparative Cultural Studies

Junior standing. (3). May be repeated for a maximum of 6 credits.

## COMPLIT 492. Comparative Literary Theory

Junior standing. (3). May be repeated for a maximum of 6 credits.

## COMPLIT 495. Senior Seminar in Comparative Literature

Comparative Literature majors with senior standing. (3). May not be repeated for credit. F.

## COMPLIT 496. Honors Thesis

Consent of instructor required. COMPLIT 495 and Honors concentration in Comparative Literature. (3). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. F, W, Sp, Su.

COMPLIT 498. Directed Reading
Consent of instructor required. (1-4). (INDEPENDENT). May not be repeated for credit. F, W, Sp/Su, Sp, Su.

## Courses in LSA Complex Systems

Complex Systems (CMPLXSYS)
CMPLXSYS 250 / ENVIRON 250 / PUBPOL 250. Social Systems, Energy, and Public Policy
(3). (QR/1). May not be repeated for credit.

CMPLXSYS 260 / SOC 260. Tipping Points, Bandwagons and Cascades: From Individual Behavior to Social Dynamics
(3). May not be repeated for credit.

## CMPLXSYS 270. Agent-Based Modeling

(3). May not be repeated for credit. Only 2 credits earned by students enrolled in or having completed CMPLXSYS 200.

CMPLXSYS 391 / POLSCI 391. Introduction to Modeling Political Processes
One course in Political Science. (4). (SS). (QR/1). May not be repeated for credit.
CMPLXSYS 399. Independent Study-Directed Readings
Consent of instructor required. (1-2; 2 in the half-term). May be repeated for a maximum of 6 credits.
May be elected more than once in the same term.

## CMPLXSYS 430 / EEB 430. Modeling Infectious Diseases

Consent of instructor required. MATH 115 or 120. (3). (BS). (QR/2). May not be repeated for credit.
Rackham credit requires additional work.

## CMPLXSYS 489. Advanced Topics in Complex Systems

Advanced standing. Technical prerequisites vary with topic. (3). May be elected three times for credit.
Rackham credit requires additional work.
CMPLXSYS 511. Theory of Complex Systems
(3). (BS). May not be repeated for credit.

CMPLXSYS 541 / PHYSICS 413. Introduction to Nonlinear Dynamics and the Physics of Complexity PHYSICS 401 or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## Courses in LSA Comprehensive Studies

Comprehensive Studies Program (CSP)
CSP 100. CSP Readings Seminar
(3). (SS). May be elected twice for credit. F, W, Su.

CSP 101. Comprehensive Studies Program: Our History of Academic Success
Consent of department required. (1). May be repeated for a maximum of 2 credits. Offered mandatory credit/no credit.

## CSP 103 / MATH 103. Intermediate Algebra

Only open to designated summer half-term Bridge students. (2 in the half-term). May not be repeated for credit.

## CSP 104 / MATH 104. Mathematical Thinking

Only open to designated Summer half-term Bridge and $M$ Academy students. (2 in the half-term). (QR/2).
May not be repeated for credit.

## CSP 105. Reading and Writing Seminar: Insiders/Outsiders

(4). (HU). May not be repeated for credit. W.

## CSP 210. Perspectives on Careers in Medicine and Health Care

Consent of instructor required. (4). May not be repeated for credit.

## Courses in LSA Earth \& Environmental Sciences

Earth and Environmental Sciences (EARTH)
EARTH 100. Coral Reefs
(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 156 or GEOSCI 156.

## EARTH 102. Energy from the Earth

(1). (NS). (BS). May not be repeated for credit.

## EARTH 103. Dinosaurs and Other Failures

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who completed or are enrolled in EARTH 150.

## EARTH 104. Ice Ages, Past and Future

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 151 or GEOSCI 151.

EARTH 105. Our Active Earth: Plate Tectonics and Geohazards
(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 205 or 146 or GEOSCI 205 or 146.

## EARTH 107. Volcanoes and Earthquakes

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 205 or 146 or 147; or GEOSCI 205 or 146 or 147.

## EARTH 108. When Earth Attacks: The Science Behind Natural Disasters

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 147 or GEOSCI 147.

## EARTH 109. Water and Society

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 206 or EARTH 206 or ENVIRON 206.

## EARTH 110. Evolving Oceans

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 222 or EARTH 222.

## EARTH 112. Life in Extreme Environments

(1 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 175 or EARTH 175 or ENVIRON 175.

## EARTH 113. Planets and Moons

(1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 153 or 204, or EARTH 153 or 204, or AOSS 204 or ASTRO 204.

## EARTH 114. Global Warming

High School math, physics, and chemistry. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 151 or EARTH 151.

## EARTH 115. The Emerald Planet

(1). (NS). (BS). May not be repeated for credit.

EARTH 116 / ENVIRON 116. Introductory Geology in the Field
(5 in the half-term). (NS). (BS). May not be repeated for credit. Reduced credit: Students who have completed GEOSCI 117 or EARTH 117 or ENVIRON 117 receive 2 credits; GEOSCI 119 or 120 or EARTH 119 or 120 or ENVIRON 119 or 120, 3 credits; GEOSCI 205 AND 206 or EARTH 205 AND 206 or ENVIRON 206, 3 credits; one of GEOSCI 205 or 206 or EARTH 205 or 206 or ENVIRON 206, 4 credits. Su at Camp Davis, Wyoming. May not be taken pass/fail.

## EARTH 118 / ENVIRON 118. Introductory Geology Laboratory

Prior or concurrent enrollment in EARTH 119, or 205 and 206, or 284. (1). (NS). (BS). May not be repeated for credit. No credit if completed an introductory course in geology (EARTH/ENVIRON 116, 117, or 120). F, W.

## EARTH 119 / ENVIRON 119. Introductory Geology Lectures

Concurrent enrollment in ENVIRON or EARTH (GEOSCI) 118 for the lab. (3-4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 116, 117, or 120, and no credit granted to those who have completed or are enrolled in EARTH 116, 117, or 120 or ENVIRON 116, 117, or 120. No credit granted to those who have completed both EARTH 205 (or GEOSCI 205) AND one of GEOSCI 206 or EARTH 206 or ENVIRON 206; Three credits granted to those who have completed one of GEOSCI 205 or 206, EARTH 205 or 206, or ENVIRON 206. F, W.

EARTH 120 / ENVIRON 120. Geology of National Parks and Monuments
(4). (NS). (BS). May not be repeated for credit. No credit if completed EARTH (GEOSCI)/ENVIRON 116, 117, or 119, or both EARTH (GEOSCI) 205 AND EARTH (GEOSCI)/ENVIRON 206. Only 3 credits with EARTH (GEOSCI) 205 or EARTH (GEOSCI)/ENVIRON 206. W.

EARTH 122 / CLIMATE 102 / ENVIRON 102. Extreme Weather
(3). (NS). (BS). May not be repeated for credit.

EARTH 125. Evolution and Extinction
(3). (NS). (BS). May not be repeated for credit. Those with credit for GEOSCI 106 or EARTH 106 may only elect EARTH 125 for 2 credits. May not be included in a concentration plan in Geological Sciences.

## EARTH 130 / CHEM 108 / PHYSICS 119. The Physical World

High-school algebra. (4). (NS). (BS). (QR/2). May not be repeated for credit.

## EARTH 140 / CLIMATE 140. Climate and the Media

High school science highly recommended. Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## EARTH 142. From Stars to Stones

High school math and science. Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. Those with credit for GEOSCI 114 or EARTH 114 may only elect EARTH 142 for 2 credits.

EARTH 146. Plate Tectonics
Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May
not be repeated for credit. No credit granted to those who have completed three of GEOSCI 105, 107, and 205 or EARTH 105, 107, and 205 (or any combination thereof). Those with credit for one of GEOSCI 105 and 107 or EARTH 105 and 107 (or any combination thereof) may only elect EARTH 146 for two credits. Those with credit for GEOSCI 205 or EARTH 205, or both GEOSCI 105 and 107 or EARTH 105 and 107 (or any combination thereof), may only elect EARTH 146 for one credit.

## EARTH 147. Natural Hazards

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. Students who have credit for GEOSCI 107 or 108 or EARTH 107 or 108 (or any combination thereof) may elect EARTH 147 for only 2 credits. Those who have credit for both GEOSCI 107 and 108 or EARTH 107 and 108 (or any combination thereof) may elect EARTH 147 for only 1 credit.

## EARTH 148. Seminar: Environmental Geology

High school math and science. Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 284 or EARTH 284 or are enrolled in EARTH 284. Those with credit for GEOSCI 109 or EARTH 109 may only elect EARTH 148 for 2 credits.

## EARTH 149. Fossils, Darwin, and Evolution

First Year Seminar. Only first year students may register including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## EARTH 151. The Ice Ages: Past and Present

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. Those with credit for GEOSCI 104 or EARTH 104 may only elect EARTH 151 for 2 credits. F.

## EARTH 153. Earthlike Planets

High school science and math recommended. Only first-year students (including first-year students with sophomore standing) may pre-register for this course. All other students need permission of instructor. (3). (NS). (BS). May not be repeated for credit. Those with credit for GEOSCI 113 or EARTH 113 may only elect EARTH 153 for 2 credits.

## EARTH 154. Ocean Resources

High school science and math recommended. Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## EARTH 156. Coral Reef Dynamics

(3). (NS). (BS). May not be repeated for credit.

## EARTH 159. Toward a Sustainable Human Future

High school science and math recommended. Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## EARTH 160. The Science Behind Environmental Issues

(3). (NS). (BS). May not be repeated for credit.

## EARTH 171 / AOSS 171 / BIOLOGY 110 / ENSCEN 171 / ENVIRON 110 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability

(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. Satisfies the geography requirement for State of Michigan certification for social studies teachers. F.

## EARTH 172 / AOSS 172 / ENSCEN 172 / ENVIRON 111 / GEOG 111. Global Change: The Sustainability Challenge

(4). (ID). (BS). (QR/2). May not be repeated for credit. Satisfies the geography requirement for State of Michigan certification for social studies teachers. W.

EARTH 201 / ENVIRON 209 / GEOG 201. Introduction to Environmental Science and Geography (4; 3 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 144 or 202 or EARTH 144 or 202 (or any combination thereof). Students who have completed EARTH 331 or GEOSCI 331 will receive only 3 credits. F.

EARTH 202 / ENVIRON 202. Introduction to Earth and Environmental Sciences in the Rockies (5). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 201. No credit granted to those who have completed or are enrolled in EARTH 201 or ENVIRON 209 or GEOG 201. Su at Camp Davis, Wyoming. May not be taken pass/fail.

EARTH 205. How the Earth Works: The Dynamic Planet
(2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI $116,117,119,120$, or 146 and no credit granted to those who have completed or are enrolled in EARTH $116,117,119,120$, or 146 or ENVIRON $116,117,119$ or 120 . No credit granted to those who have completed both GEOSCI 105 and 107 or EARTH 105 and 107 (or any combination thereof). Those with credit for one of GEOSCI 105 and 107 or EARTH 105 and 107 (or any combination thereof) may only elect EARTH 205 for 1 credit.

EARTH 206 / ENVIRON 206. How the Earth Works: The Water Cycle and Environment
(2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 116 or 117 or 119 or 120, and no credit granted to those who have completed or are enrolled in EARTH 116 or 117 or 119 or 120 or ENVIRON 116 or 117 or 119 or 120 . Those with credit for GEOSCI 109 or EARTH 109 may only elect EARTH 206 or ENVIRON 206 for 1 credit.

## EARTH 222 / ENVIRON 232. Introductory Oceanography

(3). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AOSS 203.

EARTH 223 / ENVIRON 233. Introductory Oceanography, Laboratory
(1). (NS). (BS). (QR/2). May not be repeated for credit.

EARTH 238 / ENVIRON 238 / HISTORY 238 / NEAREAST 278. Zoom: A History of Everything
(4; 3-4 in the half-term). (ID). May not be repeated for credit.
EARTH 255 / ASTRO 255. Earth and Space Sciences for Elementary School Educators High school mathematics and physics recommended. (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASTRO 101 or 115, or EARTH 171(or GEOSCI 171) or AOSS 171 or BIOLOGY 110 or ENSCEN 171 or ENVIRON 110.

## EARTH 259 / ENVIRON 259. Earth's Future and a Resilient Human Society

(4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 111 or 159.

EARTH 277. Water in the 21st Century
(3). (NS). (BS). May not be repeated for credit.

## EARTH 284 / ENVIRON 284. Environmental Geology

(4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 148, and no credit granted to those who have completed or are enrolled in EARTH 148. Those with credit for GEOSCI 147 or EARTH 147 may elect EARTH 284 or ENVIRON 284 for only 3 credits.

EARTH 299. Independent Study and Research
Consent of instructor required. (1-6). (INDEPENDENT). May be repeated for a maximum of 12 credits. A maximum of one credit of research or independent study (EARTH 299, 489, 490, 494, 498, 499) can be used for electives for the earth and environmental sciences concentration.

EARTH 305. Earth's Surface and Sediments
An introductory geological sciences laboratory course. (4). (NS). (BS). May not be repeated for credit. F.
EARTH 309 / ENVIRON 309. GIS Explorations of the Past, Present, and Future
General computer experience is required, including word processing, spreadsheets, and presentations. (3). (ID). (BS). May not be repeated for credit.

## EARTH 310. Geochemistry of the Solid Earth

EARTH (GEOSCI) 315 is strongly recommended, but not required. (4). (BS). May not be repeated for credit. W.

## EARTH 313 / EEB 313. Geobiology

EARTH (GEOSCI) 119 or BIOLOGY 171 or CHEM 130 or permission of instructor. (4). (BS). May not be repeated for credit.

## EARTH 314. Global and Applied Geophysics

MATH 115 or equivalent. (Prerequisites enforced at registration.) Introductory algebra-based physics. (4). (BS). May not be repeated for credit. May not be taken pass/fail.

## EARTH 315. Earth Materials

CHEM 130 or CHEM 210 or CHEM 230. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit.

EARTH 320 / CLIMATE 320 / SPACE 320. Earth Systems Evolution
MATH 115, MATH 116; (C or better). (3). (BS). May not be repeated for credit.
EARTH 321 / CLIMATE 321 / SPACE 321. Earth Systems Dynamics
CLIMATE/SPACE 320; Preceded or accompanied by MATH 215 and MATH 216. (3). (BS). May not be repeated for credit.

EARTH 323 / CLIMATE 323 / SPACE 323. Earth System Analysis
(4). May not be repeated for credit.

## EARTH 325 / ENVIRON 325. Environmental Geochemistry

Introductory chemistry. (4). (NS). (BS). May not be repeated for credit.
EARTH 331. Climate and Climate Change
A working knowledge of high school algebra and physical sciences. (4). (NS). (BS). May not be repeated for credit. Those with credit for GEOSCI 111 or 144 or 201 or EARTH 111 or 144 or 201 or GEOG 201 or ENVIRON 209 may only elect EARTH 331 for 3 credits.

EARTH 333 / ENVIRON 333. The Inexhaustible Seas? Marine Resources and Environmental Issues EARTH (GEOSCI) 116, 119, 125, 120, 222, or 284. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 154, and no credit granted to those who have completed or are enrolled in EARTH 154.

EARTH 344 / ENVIRON 344. Sustainable and Fossil Energy: Options and Consequences
Consent of department required. At least one previous course in physical sciences or engineering. (3 in the half-term). (NS). (BS). May not be repeated for credit. Su at Camp Davis, Wyoming. May not be taken pass/fail.

## EARTH 350 / CLIMATE 350 / SPACE 350. Atmospheric Thermodynamics

MATH 216or256or286or316 (C>). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

EARTH 351. Earth Structure
One introductory geological sciences laboratory course. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 451 or GEOSCI 451. W.

## EARTH 370 / SPACE 370. Solar-Terrestrial Relations

MATH 216 and PHYSICS 240. (4). May not be repeated for credit.
EARTH 380 / ENVIRON 380. Mineral Resources, Economics, and the Environment
No previous courses in Geology or other sciences are required. (4; 3-4 in the half-term). (NS). (BS). (QR/2). May not be repeated for credit.

EARTH 381 / CLIMATE 380 / SPACE 380. Introduction to Atmospheric Radiation
MATH 216or256or286or316 (C>). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## EARTH 401 / CLIMATE 401. Geophysical Fluid Dynamics

CLIMATE 323, SPACE 323, or EARTH 323 (or GEOSCI 323); MATH 215 and 216 and PHYSICS 240. (3). May not be repeated for credit.

## EARTH 408 / ENVIRON 403. Introduction to GIS in the Earth Sciences

An introductory geology or environmental sciences course (EARTH 116, 119, 120, 201, or 284) and MATH 116. (Prerequisites enforced at registration.) Although previous GIS experience is not required, students are expected to be familiar with desktop and mobile computing, and to be comfortable with at least one quantitative software program (Matlab, Excel, Mathematica, or R, as examples). (3). (BS). May not be repeated for credit.

## EARTH 409 / CLIMATE 410. Earth System Modeling

CLIMATE 320, CLIMATE 321, SPACE 320, SPACE 321. (4). (BS). May not be repeated for credit.
EARTH 411 / CLIMATE 411. Cloud and Precipitation Processes
CLIMATE 350, SPACE 350, MATH 216. (3). May not be repeated for credit.
EARTH 413. Geomicrobiology: How Microorganisms Shape Earth and Environment
(3). (BS). May not be repeated for credit. Rackham credit requires additional work.

EARTH 414 / CLIMATE 414. Weather Systems
CLIMATE 350, SPACE 350, CLIMATE 401 or CLIMATE 551. (3). May not be repeated for credit.

## EARTH 417. Geology of the Great Lakes

An introductory course in Geology (EARTH 116, 119, 120 or 205/206/118), BIOLOGY 171 or 172, or Oceanography (EARTH 222/223), OR permission of instructor. (2). (BS). May not be repeated for credit.

## EARTH 418. Paleontology

An introductory course in Geology (EARTH 116, 119, 120 or 205/206/118) or BIOLOGY 171 or 172. (3). (BS). May not be repeated for credit. F.

## EARTH 419. Paleontology Laboratory

Prior or concurrent enrollment in EARTH (GEOSCI) 418. (1). (BS). May not be repeated for credit. F.

## EARTH 421 / CLIMATE 421 / ENVIRON 426. Introduction of Physical Oceanography

MATH 115 and 116, and an introductory science course. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

EARTH 422. Principles of Geochemistry
EARTH (GEOSCI) 305, 310, 315 and CHEM 125/126/130. (3). (BS). May not be repeated for credit. W.
EARTH 423 / CLIMATE 422. Boundary Layer Meteorology
CLIMATE 350, SPACE 350 or equivalent. (4). May not be repeated for credit.
EARTH 429. Computational Mineralogy
(4). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EARTH 431 / ENVIRON 431. Terrestrial Biomes Past, Present and Future

BIOLOGY 171, or one of EARTH (GEOSCI) 116, 119, 120, or 205/206; or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EARTH 432. Plant Paleobiology

BIOLOGY 171 or GEOSCI 116, or 119, or 120, or 205/206, or graduate standing. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. Rackham credit requires additional work.

EARTH 433. Field Studies in Economic Geology
Permission of instructor. (1-4). (BS). May be repeated for credit.
EARTH 435. Field Studies in Mineralogy, Petrology, and Geochemistry Permission of instructor. (1-4). (BS). May be repeated for credit.

EARTH 436. Field Studies in Stratigraphy, Paleontology, and Sedimentology
Permission of instructor. (1-4). (BS). May be repeated for credit.

## EARTH 437. Evolution of Vertebrates

EARTH (GEOSCI) 125 or BIOLOGY 162 or 171 or 172. (4). (BS). May not be repeated for credit.
EARTH 440. Geological Field Methods
EARTH (GEOSCI) 305, 310, and 351 or equivalents strongly recommended. (5). (BS). May not be repeated for credit. Satisfies the Earth and Environmental Sciences concentration Field Experience requirement. Su at Camp Davis, Wyoming. May not be taken pass/fail. Rackham credit requires additional work.

EARTH 441. Field Geology Project
Consent of department required. Completion of EARTH (GEOSCI) 440 immediately prior. (1). (BS). May not be repeated for credit. Su at Camp Davis, Wyoming. May not be taken pass/fail. Rackham credit requires additional work.

EARTH 442 / ENVIRON 442. Earth Surface Processes and Soils
MATH 115 and CHEM 130. (4). (BS). May not be repeated for credit. F.
EARTH 446 / ENVIRON 446. Paleoclimatology
MATH 115 and 116 and EARTH 305, or permission of instructor. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EARTH 449. Marine Geology

EARTH (GEOSCI) 222/223 or introductory physical geology (EARTH (GEOSCI) 116, 117, 120 or 205/206/118). (3). (BS). May not be repeated for credit.

## EARTH 450 / ENVIRON 450. Ecosystem Science in the Rockies

Introductory Geology [EARTH 119\&118 or 116 or 120, or ENVIRON $119 \& 118$ or 116], AND (either General Ecology [ENVIRON 281 or BIOLOGY 281] or Introductory Environmental Science [EARTH 201 or 202 or 284, or ENVIRON 209 or 202 or 284]). (Prerequisites enforced at registration.) At least two courses from the following list: Environmental Geochemistry EARTH 325), Geobiology (EARTH 313), Earth Materials (EARTH 315), Earth's Surface and Sediments (EARTH 305). (5 in the half-term). (NS). (BS). May not be repeated for credit.

EARTH 451. Introduction to Structure and Tectonics
Permission of Instructor. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 351.

EARTH 454 / CLIMATE 440. Meteorological Analysis Laboratory
CLIMATE 350, SPACE 350, CLIMATE 401. (4). May not be repeated for credit.
EARTH 455. Determinative Methods in Mineralogical and Inorganic Materials One term of Chemistry and Physics. (4). (BS). May not be repeated for credit. W.

EARTH 457 / CLIMATE 451 / ENSCEN 451. Atmospheric Dynamics I
CLIMATE 401 or MATH 450. (4). (BS). May not be repeated for credit.

## EARTH 460 / ENVIRON 460. Paleobiology and Paleoenvironments

At least two courses from following list: EARTH 305, EARTH 313, EARTH 418. (5). (BS). May not be repeated for credit. Rackham credit requires additional work.

EARTH 465 / CHEM 467 / CLIMATE 467 / ENSCEN 467 / ENVIRON 467. Biogeochemical Cycles MATH 116, CHEM 210, and PHYSICS 240 (or 260). (3). (BS). May not be repeated for credit. F, W.

## EARTH 467. Stratigraphy and Basin Analysis

One of the following: EARTH 116 or ENVIRON 116; or GEOSCI 119 and 118, or ENVIRON 119 and 118; or EARTH 120 or ENVIRON 120 or EARTH 201 or GEOG 201 or ENVIRON 209; or EARTH 205 and 206 (or ENVIRON 206) and 207; or graduate standing. (Prerequisites enforced at registration.) EARTH 305, 310, and 351. (4). (BS). May not be repeated for credit. F.

## EARTH 468. Data Analysis and Model Estimation

MATH 115. (Prerequisites enforced at registration.) Knowledge of, or willingness to learn, a programming language (e.g., Matlab, Mathematica). (3). (BS). (QR/2). May not be repeated for credit.

## EARTH 474 / AOSS 474. Ice Sheets, Glaciers and Climate Change

MATH 115 and 116. (3). (BS). May not be repeated for credit.

## EARTH 475 / CLIMATE 475 / ENSCEN 475. Earth System Interactions

Senior standing in science or engineering. (4). (BS). May not be repeated for credit.

## EARTH 477 / ENVIRON 479. Hydrogeology

MATH 116; and High school knowledge of PHYSICS, CHEMISTRY, and EARTH (GEOSCI) or equivalent. (4). (BS). May not be repeated for credit.

## EARTH 478. Geochemistry of Natural Waters

College Chemistry. (4). (BS). May not be repeated for credit.

## EARTH 483. Geophysics: Seismology

Prior or concurrent election of MATH 215 and PHYSICS 240 (or 260). (4). (BS). May not be repeated for credit.

## EARTH 489. Geological Sciences Honors

Consent of instructor required. (1-6). (BS). (INDEPENDENT). May be repeated for a maximum of 6 credits. A maximum of one credit of research or independent study (EARTH 299, 489, 490, 494, 498, 499) can be used for electives for the earth and environmental sciences concentration.

## EARTH 490. Geological Sciences Honors

Consent of instructor required. (1-6). (BS). (INDEPENDENT). May be repeated for a maximum of 6 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of EARTH 490, the final grade is posted for both term's elections. F, W, Sp. A maximum of one credit of research or independent study (EARTH 299, 489, 490, 494, 498, 499) can be used for electives for the earth and environmental sciences concentration.

## EARTH 494. Experiential Learning in the Earth Sciences

Consent of instructor required. Junior or senior standing; and one of the following: EARTH (GEOSCI) 116, 119 and 118, 120, 201, 205/206/207, 222 and 223, 284 or ENVIRON 116, 119 and 118, 120, 209, 232 and

233, 284 or GEOG 201. (1-4). (BS). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. A maximum of one credit of research or independent study (EARTH 299, 489, 490, 494, 498, 499) can be used for electives for the earth and environmental sciences concentration. Offered mandatory credit/no credit. Rackham credit requires additional work.

## EARTH 495. Methods in Research for Natural Sciences

Consent of department required. (1). (BS). May not be repeated for credit. Offered mandatory credit/no credit. Rackham credit requires additional work.

## EARTH 496. Special Topics in the Earth and Environmental Sciences

(1-3). (BS). May be elected three times for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## EARTH 497. William T. Smith Lecture Seminar

Two required Geological Sciences concentration core courses. (1). May be elected twice for credit. Offered mandatory credit/no credit.

## EARTH 498. Research or Special Work

Consent of instructor required. (1-6). (INDEPENDENT). May be repeated for a maximum of 6 credits. A maximum of one credit of research or independent study (EARTH 299, 489, 490, 494, 498, 499) can be used for electives for the earth and environmental sciences concentration.

## EARTH 499. Research or Special Work

Consent of instructor required. (1-6). (INDEPENDENT). May be repeated for a maximum of 6 credits. A maximum of one credit of research or independent study (EARTH 299, 489, 490, 494, 498, 499) can be used for electives for the earth and environmental sciences concentration. F, W, Sp/Su, Sp, Su.

## EARTH 515. Tectonics of Oceans and Continents

EARTH (GEOSCI) 351. (4). (BS). May not be repeated for credit.

## EARTH 531. Seminar in Geologic Problems

Permission of instructor. (1-3). (BS). May be elected three times for credit. May be elected more than once in the same term. Offered mandatory credit/no credit. Rackham credit requires additional work.

## EARTH 532. Seminar in Climate, Tectonics, and Surface Processes

Permission of instructor. (1-2). (BS). May be repeated for credit. May be elected more than once in the same term.

## EARTH 534. Seminar in Geophysics, Tectonics, or Structure

Permission of instructor. (1-2). (BS). May be repeated for credit. May be elected more than once in the same term.

EARTH 535. Seminar in Mineralogy, Petrology, or Geochemistry
Permission of instructor. (1-2). (BS). May be repeated for credit. May be elected more than once in the same term.

## EARTH 536. Seminar in Stratigraphy, Paleontology, or Sedimentology

Permission of instructor. (1-2). (BS). May be repeated for credit. May be elected more than once in the same term.

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## EARTH 581 / CEE 581. Aquatic Chemistry

CHEM 130 and senior or graduate standing. (3). (BS). May not be repeated for credit.

## Courses in LSA Ecology \& Evolutionary Biology

Ecology and Evolutionary Biology (EEB)
EEB 300. Undergraduate Research
Consent of instructor required. Eight credits of biology and 3.0 grade point average in science; permission of faculty member in EEB. (1-3). (BS). (INDEPENDENT). May be repeated for a maximum of 9 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term (EEB 300 or 400), the final grade is posted for both term's elections. Three credits of independent research must be completed in one term to satisfy a Biology laboratory requirement. A maximum of three credits of any independent study course may count toward the Biology concentration programs.

## EEB 301. Active Learning Assistant

Consent of instructor required. BIOLOGY 171, 172/174, and 173, as well as experience in the target course subject matter. (EXPERIENTIAL). (INDEPENDENT). May be elected four times for credit. Offered mandatory credit/no credit.

## EEB 302. Teaching Experience for Undergraduates

Consent of instructor required. (1-3). (EXPERIENTIAL). May not be repeated for credit.

## EEB 313 / EARTH 313. Geobiology

EARTH (GEOSCI) 119 or BIOLOGY 171 or CHEM 130 or permission of instructor. (4). (BS). May not be repeated for credit.

## EEB 315 / ENVIRON 315. The Ecology and Evolution of Infectious Diseases

BIOLOGY 100; or BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (3). (NS). (BS). May not be repeated for credit.

## EEB 316 / ENVIRON 316 / RCIDIV 316. Introduction to Food Systems

Consent of instructor required. (3). (ID). May not be repeated for credit.

## EEB 318 / ENVIRON 318 / RCIDIV 318. Food, Land, and Society

One year of college-level Biology, Environmental Science or Environmental Studies; General Ecology recommended. (4). (ID). May not be repeated for credit.

EEB 320 / ENVIRON 311. Rivers, Lakes, and Wetlands: Introduction to Aquatic Ecosystems One course in BIOLOGY or permission of instructor. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ENVIRON 331/EEB 321 (Rivers, Lakes and Wetlands). Satisfies a Biology laboratory requirement.

EEB 321 / ENVIRON 331. Rivers, Lakes, and Wetlands: Introduction to Aquatic Ecosystems (UMBS) Consent of department required. One course in BIOLOGY. (5 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ENVIRON 311/EEB 320 (Rivers, Lakes and Wetlands).

## EEB 330. Biology of Birds

Two college-level courses in biology. (5 in the half-term). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## EEB 335. Biodiversity Research Seminar

BIOLOGY 171 and 172 (or 174); or BIOLOGY 195 and 173. (Prerequisites enforced at registration.) Recommended grade of at least B in BIOLOGY introductory courses. (2). (BS). May not be repeated for credit. F and W.

## EEB 341. Parasitology

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (4). (BS). May not be repeated for credit. W. Satisfies a Biology laboratory requirement.

## EEB 348 / ENVIRON 348. Forest Ecosystems

Consent of department required. BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (5 in the halfterm). (NS). (BS). May not be repeated for credit. Su at Biological Station.

## EEB 362 / ANTHRBIO 362 / ENVIRON 362. Primate Evolutionary Ecology

An introductory course on primates, ecology, or conservation biology is advised. No quantitative or statistical training is required. (3). (NS). (BS). May not be repeated for credit.

## EEB 372 / ENVIRON 372. General Ecology Laboratory

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND concurrent or prior enrollment in BIOLOGY 281/ENVIRON 281. (3). (BS). May not be repeated for credit.

## EEB 380. Oceanography: Marine Ecology

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; and one term of college CHEM or PHYSICS. (3). (BS). May not be repeated for credit.

EEB 381 / ENVIRON 381. General Ecology
BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND a laboratory course in CHEM. (5 in the half-term). (BS). May not be repeated for credit.

## EEB 390. Evolution

BIOLOGY 162 or 163 or 171 or (195 \& 173); prior or concurrent enrollment in BIOLOGY 305. (3; 5 in the half-term). (BS). May not be repeated for credit.

## EEB 391. Introduction to Evolution: Quantitative Approach

MATH 115, 120, 185, or equivalent. (Prerequisites enforced at registration.) Any introductory course in probability and statistics. (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 390 or EEB 392.

## EEB 392. Evolution (UMBS)

BIOLOGY 171 or (195 \& 173); prior or concurrent enrollment in BIOLOGY 305. (5 in the half-term). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 391 (Quantitative Evolution) or EEB 390 (Evolution). This course is taught at the University of Michigan Biological Field Station (UMBS) in the spring and/or summer terms only.

## EEB 397 / MCDB 397. Writing in Biology

MCDB 300 or 400, or EEB 300 or 400, or permission of instructor. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 301 or MCDB 301.

EEB 399 / MCDB 399. Doing Science: An Introduction to Experimental Design in the Life Sciences Prior or concurrent enrollment in MCDB or EEB 300. (1 in the half-term). (BS). May not be repeated for credit.

## EEB 400. Advanced Research

Consent of instructor required. 12 credits of BIOLOGY, 3.0 average in science, and permission of instructor in EEB. (1-3). (BS). (INDEPENDENT). May be repeated for a maximum of 9 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. Three credits of independent research must be completed in one term to satisfy a Biology laboratory requirement. A maximum of three credits of any independent study course may count toward the Biology concentration programs.

## EEB 401. Advanced Topics in Biology

Intended for senior concentrators. The prerequisites will be set by the instructor as appropriate for each section. (2-3). (BS). May be repeated for a maximum of 6 credits.

EEB 404 / MCDB 404. Genetics, Development, and Evolution
BIOLOGY 305. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## EEB 405. Biological Station Special Topics

College course in biology, chemistry, and ecology. (5 in the half-term). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EEB 408. Modeling for Ecology and Evolutionary Biology

MATH 115 or equivalent; and BIOLOGY 171, 172 or 174, \& 173 or BIOLOGY 195 \& 173. (Or Graduate Student standing.). (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## EEB 410. EEB Capstone Seminar

BIOLOGY 281 and 390. (3). (BS). May not be repeated for credit.

## EEB 414. Molecular Approaches in Ecology and Evolutionary Biology

 BIOLOGY 171 \& 172/174 \& 173, OR BIOLOGY 195 \& 173, OR Graduate Student Standing. (Prerequisites enforced at registration.) EEB 390 (Evolution) and BIOLOGY 305 (Genetics). (2 in the half-term). (BS). May not be repeated for credit.
## EEB 416 / MCDB 416. Introduction to Bioinformatics

BIOLOGY 305 and EEB 390, or graduate standing. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EEB 420. Plant Evolution

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND BIOLOGY 230 or equivalent. (3). (BS). May not be repeated for credit.

## EEB 424 / ENVIRON 415 / NRE 415. Behavioral Ecology and Conservation Biology

BIOLOGY 162 or 171 and completion or concurrent enrollment in either ENVIRON 415 or EEB 424 or NRE 415. (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 492.

## EEB 430 / CMPLXSYS 430. Modeling Infectious Diseases

Consent of instructor required. MATH 115 or 120. (3). (BS). (QR/2). May not be repeated for credit. Rackham credit requires additional work.

## EEB 431. Ecology of Animal Parasites

Two laboratory courses in BIOLOGY. (5 in the half-term). (BS). May not be repeated for credit. Meets June 26 - August 21, 2010.

## EEB 433 / ENVIRON 433 / NRE 433. Ornithology

BIOLOGY 171 and (172 or 174) and 173, or BIOLOGY 195 and 173. (4). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## EEB 436 / ENVIRON 436 / NRE 436. Woody Plants: Biology and Identification

BIOLOGY 162 or 171. (4). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EEB 440 / ENVIRON 422 / NRE 422. Biology of Fishes

BIOLOGY 162 or 171, 172 and 173. (3). (BS). May not be repeated for credit. F.

## EEB 442. Biology of Insects

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are currently enrolled in EEB 443 (Biology of Insects at UMBS). Satisfies a Biology laboratory requirement.

## EEB 443. Biology of Insects (UMBS)

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (5 in the half-term). (BS). May not be repeated for credit. No credit granted to those who have completed or are currently enrolled in EEB 442 (Biology of Insects). This course is taught at the University of Michigan Biological Field Station (UMBS) in the spring and/or summer terms only. Rackham credit requires additional work.

## EEB 446. Microbial Ecology

Introductory Microbiology (BIOLOGY 207 or the equivalent) and one 300-level or above biology course [Microbial diversity (EEB 470) and general ecology (EEB 281/381) are recommended.]. (3). (BS). May not be repeated for credit. For the Microbiology concentration, this course counts as a Group 1 Specified Elective.

EEB 451 / ENVIRON 451 / NRE 451. Biology of Mammals
BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (4). (BS). May not be repeated for credit. F. (Offered in alternate years). Satisfies a Biology laboratory requirement.

## EEB 453. Field Mammalogy

Two laboratory courses in BIOLOGY. (5 in the half-term). (BS). May not be repeated for credit. (Offered in even years at the Biological Station). Satisfies a Biology laboratory requirement.

## EEB 455. Ethnobotany

Two college-level courses in BIOLOGY. (5 in the half-term). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## EEB 457. Algae in Freshwater Ecosystems

Two laboratory courses in Botany. (5 in the half-term). (BS). May not be repeated for credit. (Offered in even years at the Biological Station). Satisfies a Biology laboratory requirement.

## EEB 459. Systematic Botany

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; OR BIOLOGY 255. (4). (BS). May not be repeated for credit. F. Satisfies a Biology laboratory requirement.

## EEB 463. Neotropical Plant Families

BIOLOGY 215 or EEB 459. (3). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## EEB 466 / MATH 466. Mathematical Ecology

MATH 217, 417, or 419; MATH 256, 286, or 316; and MATH 450 or 451. (3). May not be repeated for credit. Rackham credit requires additional work.

## EEB 468. Biology of Fungi

BIOLOGY 305, EEB 390, or BIOLOGY 281 strongly suggested. (4). (BS). May not be repeated for credit.

## EEB 470. Microbial Diversity

BIOLOGY 207; CHEM 210 (or equivalent); and at least one 300 -level course in MCDB or EEB.
(Prerequisites enforced at registration.) Junior standing or above. (3). (BS). May not be repeated for credit.

## EEB 472. Plant-Animal Interactions

BIOLOGY 281. (3). (BS). May not be repeated for credit. W.

## EEB 476 / ENVIRON 476 / NRE 476. Ecosystem Ecology

General Ecology and a 400-level course in Aquatic or Terrestrial Ecology. (3). (BS). May not be repeated for credit. W.

## EEB 477. Laboratory in Field Ecology

A course in Ecology. (5). (BS). May not be repeated for credit. F. Satisfies a Biology laboratory requirement.

## EEB 480. Model-based Statistical Inference for Ecology

Senior natural science concentrator or Graduate student. (4). (BS). May not be repeated for credit.

## EEB 482. Freshwater Ecosystems: Limnology (UMBS)

Sophomores and above. (Prerequisites enforced at registration.) One course in each of the following: Ecology, Chemistry, and Physics. (5 in the half-term). (BS). May not be repeated for credit. No credit granted to those who are enrolled in or have completed BIOLOGY 482, EEB 483, or EEB 484.

## EEB 483. Freshwater Ecosystems: Limnology

Sophomores and above. (Prerequisites enforced at registration.) One course in each of the following: Ecology, Chemistry, and Physics. (4). (BS). (QR/1). May not be repeated for credit. No credit granted to those who are enrolled in or have completed BIOLOGY 482, EEB 482, or EEB 484. W.

## EEB 485. Population and Community Ecology

(4). (BS). May not be repeated for credit. Rackham credit requires additional work.

## EEB 486. Biology and Ecology of Fish

Two laboratory courses in BIOLOGY. (5 in the half-term). (BS). May not be repeated for credit. (Offered in odd years at the Biological Station). Satisfies a Biology laboratory requirement.

## EEB 487 / ENVIRON 409 / NRE 409. Ecology of Fishes

BIOLOGY 162 or 171, 172 and 173. (3-4). (BS). May not be repeated for credit. W. (Lectures: 3 credits; lectures and lab: 4 credits). Satisfies a Biology laboratory requirement only if the student signs up for four credits.

## EEB 489 / ENVIRON 430 / NRE 430. Soil Ecology

BIOLOGY 162 or 171 and 172 and 173, and General Chemistry. Concurrent enrollment in ENVIRON 436/EEB 436 and ENVIRON 435/NRE 435 highly recommended. (3). (BS). May not be repeated for credit. F. Satisfies a Biology laboratory requirement.

## EEB 490. Evolution at the Population Level

MATH 115. (Prerequisites enforced at registration.) BIOLOGY 305. (3). (BS). May not be repeated for credit. May be used to satisfy an elective requirement in several biology majors and minors.

## EEB 491. Phylogenetic Methods and Theory

BIOLOGY 171, 172 or 174, \& 173 or BIOLOGY 195 \& 173. (4). (BS). May not be repeated for credit.

## EEB 492. Behavioral Ecology

BIOLOGY 172 or 174 or [BIOLOGY 195 \& 173]. Or Graduate Student Standing. (Prerequisites enforced at registration.) EEB 390 (Evolution). (3). (BS). May not be repeated for credit. No credit granted to students who have completed or are currently enrolled in EEB 493 (Behavioral Ecology at UMBS). (Offered in odd years at the Biological Station).

## EEB 493. Behavioral Ecology (UMBS)

BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. Or graduate student standing. (Prerequisites enforced at registration.) EEB 390 (Evolution). (5 in the half-term). (BS). May not be repeated for credit. No credit granted to students who have completed or are currently enrolled in EEB 492. This course is taught at the University of Michigan Biological Field Station (UMBS) in the spring and/or summer terms only. Rackham credit requires additional work.

## EEB 494 / MCDB 494. Teaching College Science

Consent of department required. Science concentrators having completed a range of courses, such as BIOLOGY 171,172 and 173; BIOLOGY 225, 281, 305 or EEB 390; CHEM 130, 210 or 211; PHYSICS 140 or 160; or EARTH 119. (2). (BS). May not be repeated for credit.

## EEB 498. The Ecology of Agroecosystems

A course in Ecology. (3). (BS). May not be repeated for credit. F.

## EEB 499 / MCDB 499. Responsible Conduct of Research and Scholarship in Biology

Prior or concurrent enrollment in MCDB or EEB 300. (1). (BS). May not be repeated for credit. Offered mandatory credit/no credit.

## EEB 556. Field Botany of Northern Michigan

A course in Systematic Botany (EEB 459). (5 in the half-term). (BS). May not be repeated for credit. Satisfies a Biology laboratory requirement.

## Courses in LSA Economics

Economics (ECON)

## ECON 101. Principles of Economics I

High school algebra and geometry. (4; 3 in the half-term). (SS). (QR/2). May not be repeated for credit. ECON 101 and 102 are required as prerequisites to an Economics major and to upper-level courses in Economics. F, W, Sp/Su.

## ECON 102. Principles of Economics II

ECON 101. (4; 3 in the half-term). (SS). (QR/2). May not be repeated for credit. ECON 101 and 102 are required as prerequisites to an Economics major and to upper-level courses in Economics. ECON 102 should not be taken without having taken ECON 101. F, W, Sp, Su.

## ECON 108. Introductory Microeconomics Workshop

First-year standing and concurrent enrollment in ECON 101. (1). (SS). May be elected twice for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

## ECON 140. First-Year Seminar in Economics

(3). (ID). May not be repeated for credit.

## ECON 195. Seminar in Introductory Economics

(3). (SS). May not be repeated for credit.

## ECON 208. Intermediate Microeconomics Workshop

ECON 101 (concurrent or previous). (1). (SS). May be elected twice for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

## ECON 230. Honors Core in Economics

Consent of department required. (4). (SS). May be elected twice for credit. May be elected more than once in the same term.

## ECON 240. Honors Core Writing in Economics

Consent of department required. (4). (SS). May be elected twice for credit. May be elected more than once in the same term.

## ECON 251. Introduction to Statistics and Econometrics II

With a minimum grade of C, MATH 115, 116, 121, 156, 185, 186, 215, 255, 256, or 285 and with a minimum grade of $C$-, either ECON 249, or STATS 250, or ECON 451, or IOE 265, or STATS 412, or STATS 426. (Prerequisites enforced at registration.) (4). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 452 or ECON 454. Students may take only one of the following courses for credit towards graduation: ECON 251, ECON 452, and ECON 454.

## ECON 290. Topics in Economics

(3). May be repeated for a maximum of 6 credits.

## ECON 299. Undergraduate Internship

Consent of instructor required. Must be declared economics concentrator and have permission of concentration advisor. (1). (EXPERIENTIAL). May be repeated for a maximum of 2 credits. May be elected
more than once in the same term. May not be used to satisfy economics electives for an economics concentration. Internship credit is not retroactive and must be prearranged. Offered mandatory credit/no credit.

## ECON 309. Experimental Economics

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (3). (SS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 109.

## ECON 310. Money and Banking

ECON 102 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

## ECON 320. Survey of Labor Economics

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (3). (SS). May not be repeated for credit.

## ECON 323. Economics and Gender

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (3). (SS). May not be repeated for credit.

## ECON 325. Economics of Education

ECON 101 completed with a minimum grade of C or better. (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with a B or higher) and STATS 250. (3). (SS). May not be repeated for credit. No credit in ECON 395: TopicID \#12, The Economics of Education (taken prior to Fall 2014).

## ECON 330. American Industries

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (4). (SS). May not be repeated for credit.

## ECON 340. International Economics

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (3). (SS). May not be repeated for credit.

## ECON 360. The Developing Economies

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (3). (SS). May not be repeated for credit.

ECON 370 / ENVIRON 375. Environmental and Resource Economics
ECON 101. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 471 or 472, or NRE 571 or 583.

## ECON 395. Topics in Microeconomics and Microeconomic Policy

ECON 101 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) ECON 102 (unless ECON 101 completed with B or higher). (1-3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ECON 396. Topics in Macroeconomics and Macroeconomic Policy

ECON 102 (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) (13). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ECON 401. Intermediate Microeconomic Theory

MATH 115, 116, 121, 156, 176, 185, 186, 215, 285, 295, or 296; with a grade of C or better.
(Prerequisites enforced at registration.) ECON 101 and 102. (4). (BS). (QR/1). May not be repeated for credit. F, W, Sp. Rackham credit requires additional work.

## ECON 402. Intermediate Macroeconomic Theory

MATH 115, 116, 121, 156, 176, 185, 186, 215, 295, or 296, (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) It is strongly recommended that students take ECON 401 before 402. (4). (BS). (QR/1). May not be repeated for credit. F, W, Su. Rackham credit requires additional work.

## ECON 408 / PHIL 408. Philosophy and Economics

ECON 401 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 409. Game Theory

ECON 401 (completed with a minimum grade of C- or better); OR Graduate Standing. (Prerequisites enforced at registration.) MATH 215. (4). (BS). May not be repeated for credit.

## ECON 411. Monetary and Financial Theory

ECON 402 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) STATS 250, or ECON 451, or ECON 453, or ECON 251, or ECON 452, or ECON 454. (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 412. Topics in Macroeconomics

ECON 402 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## ECON 414. Growth Theory

ECON 401 and 402 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ECON 418. Business Cycles

ECON 402 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 421. Labor Economics I

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 422. The Structure of Labor Markets

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 429. Migration Economics and Policy

ECON 401 (completed with a minimum grade of C- or better); OR Graduate standing. (Prerequisites enforced at registration.) STATS 250 or ECON 451. (3-4). May not be repeated for credit. Rackham credit requires additional work.

## ECON 431. Industrial Organization and Performance

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 432. Government Regulation of Industry

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (34). May not be repeated for credit. W. Rackham credit requires additional work.

## ECON 435. Financial Economics

ECON 401 (completed with a minimum grade of C- or better); or Graduate standing. (Prerequisites enforced at registration.) STATS 250 or ECON 451. (4). May not be repeated for credit. Rackham credit requires additional work.

## ECON 437. Energy Economics and Policy

ECON 401 (completed with a minimum grade of C- or better); OR graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 438. Economics of Health Services

ECON 401 with a grade of at least C- or graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## ECON 441. International Trade Theory

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 442. International Finance

ECON 402 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (4). May not be repeated for credit. Rackham credit requires additional work.

## ECON 444. The European Economy

ECON 401 with a grade of at least C-; or graduate standing. (Prerequisites enforced at registration.) (4). May not be repeated for credit. Rackham credit requires additional work.

## ECON 445. The Economy of the People's Republic of China

ECON 401 (completed with a minimum grade of C- or better); OR Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 451. Intermediate Introduction to Statistics and Econometrics I

With a minimum grade of $C$-, MATH 116, 156, 186, 215, 255, 256 or 285. (Prerequisites enforced at registration.) (4). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 405 or ECON 453. Students may take only two of the following courses for credit towards graduation: STATS 250 or ECON 249, ECON 451, and ECON 453. May not be included in an Economics minor.

## ECON 452. Intermediate Introduction to Statistics and Econometrics II

With a minimum grade of C-, ECON 451 or ECON 453, or STATS 426. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 406 or ECON 454, or ECON 251. Students may take only one of the following courses for credit towards graduation: ECON 251, ECON 452, and ECON 454. One (but only one) of ECON 452 and 454 may be counted toward an Economics minor. Rackham credit requires additional work.

## ECON 453. Advanced Introduction to Statistics and Econometrics I

MATH 215, 255, or 285 and MATH 217 with a minimum grade of C-; or graduate standing. (Prerequisites enforced at registration.) (3-4). (BS). May not be repeated for credit. Students may take only two of the following courses for credit towards graduation: ECON 249, STATS 250, ECON 451, and ECON 453. May not be included in an Economics minor. Rackham credit requires additional work.

## ECON 454. Advanced Introduction to Statistics and Econometrics II

ECON 453 with a minimum grade of C-; or graduate standing. (Prerequisites enforced at registration.) (3 - 4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in IOE 265, or STATS 280, 400, or 412. Students may take only two of the following courses for credit towards graduation: ECON 251, ECON 452, and ECON 454. One (but only one) of ECON 452 and 454 may be counted toward an Economics minor. Rackham credit requires additional work.

## ECON 457. Financial Econometrics

ECON 401 and ECON 454, with a minimum grade of $C$ in each; or graduate standing. (Prerequisites enforced at registration.) Students may request permission of instructor if they are taking ECON 454 concurrently or if they took ECON 452 instead of ECON 454. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## ECON 461. The Economics of Development I

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (4; 3 in the half-term). May not be repeated for credit. Rackham credit requires additional work.

## ECON 462. The Economics of Development II

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) ECON 360 or 461. (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 466. Economics of Population

ECON 401 completed with a minimum grade of $C$ - or better; or graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

ECON 472 / NRE 583. Intermediate Natural Resource Economics
ECON 401 (completed with a minimum grade of C- or better), OR NRE 570; OR graduate standing. (Prerequisites enforced at registration.) NRE 570 or PI. (3). May not be repeated for credit.

## ECON 481. Government Expenditures

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 482. Government Revenues

ECON 401 with a grade of at least C-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 485. Law and Economics

ECON 401 with a grade of at least $C$-; or Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 490. Topics in Microeconomics

ECON 401 (completed with a minimum grade of $C$ - or better); OR Graduate standing. (Prerequisites enforced at registration.) STATS 250, or ECON 249, or STATS 426, or ECON 451. (3). May be elected twice for credit. May be elected more than once in the same term.

## ECON 491. The History of the American Economy

ECON 401 (completed with a minimum grade of C- or better); OR Graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 494 / HISTORY 494. Topics in Economic History

ECON 401 (completed with a minimum grade of C- or better); or Graduate Standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. History concentrators without ECON 401 will need permission to enroll.

## ECON 495. Seminar in Economics

ECON 401 and 402, each with a grade of C- or better. (Prerequisites enforced at registration.) ECON 452 or ECON 454. (3). May be repeated for a maximum of 6 credits.

## ECON 496. History of Economic Thought

ECON 401 (completed with a minimum grade of C- or better); OR graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## ECON 498. Honors Independent Research

Consent of instructor required. Open only to students admitted to Honors concentration in economics. Permission of instructor. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of ECON 498, the final grade is posted for both term's elections.

## ECON 499. Independent Research

Consent of instructor required. Written permission of staff member supervising research, and permission of the Economics concentration advisor. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. No more than four credits may be used in an Economics concentration program. Rackham credit requires additional work.

## Courses in LSA English Language \& Literature

English Language and Literature (ENGLISH)
ENGLISH 124. Academic Writing and Literature
(4). (FYWR). May not be repeated for credit.

ENGLISH 125. Writing and Academic Inquiry
(4). (FYWR). May not be repeated for credit. F, W, Sp, Su.

ENGLISH 140. First-Year Seminar on English Language and Literature
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

ENGLISH 142. First-Year Interdisciplinary English Literature Seminar
(3). (ID). May be repeated for a maximum of 6 credits.

ENGLISH 203. Introduction to Language and Rhetoric
(3-4; 3 in the half-term). (HU). May be repeated for a maximum of 8 credits.
ENGLISH 215. Introduction to Women and Literature
(3-4; 3 in the half-term). (HU). May not be repeated for credit.

## ENGLISH 216. Introduction to Disability Studies

(3-4; 2-3 in the half-term). (HU). May not be repeated for credit.

## ENGLISH 221. Literature and Writing Outside the Classroom

(2-3). (HU). May be elected twice for credit. May be elected more than once in the same term.

## ENGLISH 223. Creative Writing

(3). (CE). May not be repeated for credit. F, W, Sp.

ENGLISH 225. Academic Argumentation
Completion of the First-Year Writing Requirement. (4; 3 in the half-term). (HU). May not be repeated for credit. F, W, Sp.

ENGLISH 226. Directed Writing
Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 3 credits. $F$, W, Sp/Su, Sp, Su.

ENGLISH 227 / THTREMUS 227. Introductory Playwriting
(3; 2 in the half-term). (CE). May not be repeated for credit.
ENGLISH 229. Professional Writing
Completion of the First-Year Writing Requirement. (4). May not be repeated for credit.
ENGLISH 230. Introduction to Short Story and Novel
(3). (HU). May not be repeated for credit.

## ENGLISH 231. Honors Core in English Studies

Consent of department required. (4). (HU). May be elected twice for credit. May be elected more than once in the same term.

ENGLISH 232. Introduction to Visual Culture
(3-4; 3 in the half-term). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

ENGLISH 240. Introduction to Poetry
(3). (HU). May not be repeated for credit.

ENGLISH 241. Honors Core Writing in English Studies
Consent of department required. (4). (HU). May be elected twice for credit. May be elected more than once in the same term.

ENGLISH 242. Interdisciplinary Studies in English
(1-4). (ID). May be elected twice for credit.
ENGLISH 245 / RCHUMS 280 / THTREMUS 211. Introduction to Drama and Theatre
(3; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RCHUMS 281.

ENGLISH 250. Introduction to English Language Studies
(3). (HU). May not be repeated for credit.

ENGLISH 258 / JUDAIC 258 / RELIGION 258. The Bible as Literature
(3). (HU). May not be repeated for credit.

ENGLISH 260. Introduction to British Literature
(3). (HU). May not be repeated for credit.

ENGLISH 270. Introduction to American Literature
(3). (HU). May not be repeated for credit.

ENGLISH 274 / AAS 271. Introduction to Afro-American Literature
AAS 111 (CAAS 111). (3; 2 in the half-term). (HU). (R\&E). May not be repeated for credit.
ENGLISH 280. Introduction to Digital Cultures
(3). (HU). May not be repeated for credit.

## ENGLISH 282 / AMCULT 232 / NATIVEAM 232. Native American Literature

(4; 3 in the half-term). (HU). May not be repeated for credit.

## ENGLISH 290. Themes in Language and Literature

(3-4; 3 in the half-term). (HU). May be repeated for a maximum of 6 credits.

## ENGLISH 292. Topics in Language and Literature

(1-2; 1 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

## ENGLISH 298. Introduction to Literary Studies

(3). (HU). May not be repeated for credit. Prerequisite for the English major and English Honors Plan.

## ENGLISH 299. Directed Study

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 3 credits. F, $w, S p / S u, S p, S u$.

ENGLISH 303. Language and Rhetorical Studies
Recommended for students interested in focusing their study of English on language matters. (4; 3 in the half-term). (HU). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

ENGLISH 305. Exploring the English Language
Recommended for students preparing to teach English. (4; 3 in the half-term). (HU). May not be repeated for credit.

ENGLISH 308. History of the English Language
(3-4; 3 in the half-term). (HU). May not be repeated for credit.

## ENGLISH 310. Discourse and Society

(3). May not be repeated for credit.

ENGLISH 311 / THTREMUS 328. Theater of Politics
Consent of department required. (3). (HU). May not be repeated for credit.
ENGLISH 312 / AMCULT 354 / ENVIRON 354. Camp Davis: History and Literature of the Rockies Consent of department required. (3 in the half-term). (HU). May not be repeated for credit. Su at Camp Davis, Wyoming. May not be taken pass/fail.

ENGLISH 313. Topics in Literary Studies
(4; 3 in the half-term). (HU). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

ENGLISH 314 / WOMENSTD 314. Gender and Sexuality Studies in Literature
(3-4; 2-3 in the half-term). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ENGLISH 315 / WOMENSTD 315. Women and Literature

(3-4; 3 in the half-term). (HU). May be repeated for a maximum of 6 credits.

## ENGLISH 316. Disability Studies

(3). (HU). May not be repeated for credit.

## ENGLISH 317. Literature and Culture

(3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ENGLISH 318. Genre Studies

(3). (HU). May not be repeated for credit.

## ENGLISH 319. Literature and Social Change

(3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ENGLISH 320. Literature and the Environment

(3-4; 2-3 in the half-term). (HU). May not be repeated for credit.

## ENGLISH 321. Internship

Concentration in English. (1). (EXPERIENTIAL). May be repeated for a maximum of 4 credits. May be elected more than once in the same term. Students may count up to 4 credits of ENGLISH 321 toward their elective concentration credits. Offered mandatory credit/no credit.

## ENGLISH 323. Creative Writing: Fiction

ENGLISH 223; submission of portfolio and application required. (3). (CE). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ENGLISH 324. Creative Writing: Poetry

ENGLISH 223; submission of portfolio and application required. (3). (CE). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## ENGLISH 325. Art of the Essay

Completion of the First-Year Writing Requirement. (3). May not be repeated for credit. F, W, Sp, Su.

## ENGLISH 326. Community Writing and Public Culture

Completion of the First-Year Writing Requirement. (3; 2 in the half-term). (CE). May be repeated for a maximum of 6 credits.

ENGLISH 327 / THTREMUS 327. Intermediate Playwriting
ENGLISH 227. (3; 2 in the half-term). May not be repeated for credit.

## ENGLISH 328. Writing and the Environment

(3). (CE). May be elected twice for credit.

ENGLISH 329 / ENVIRON 329. Environmental Writing and Great Lakes Literature Consent of department required. (5 in the half-term). (HU). May not be repeated for credit.

## ENGLISH 330 / SAC 330. Major Directors

SAC 236. (3). (HU). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## ENGLISH 331 / SAC 331. Film Genres and Types

SAC 236. (3). (HU). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## ENGLISH 332. Visual Culture

(3-4;2-3 in the half-term). (HU). May be elected twice for credit. May be elected more than once in the same term.

## ENGLISH 335. Autobiography

(3-4; 2-3 in the half-term). (HU). May not be repeated for credit.

ENGLISH 340. Studies in Poetry
(3). May not be repeated for credit.

ENGLISH 341. Fantasy
(3-4;2-3 in the half-term). (HU). May not be repeated for credit.
ENGLISH 346. Performance Studies
(3). May not be repeated for credit.

ENGLISH 349 / THTREMUS 323. American Theatre and Drama
(3). (HU). May not be repeated for credit.

ENGLISH 350 / MEMS 350. Literature in English to 1660
(4; 3 in the half-term). May not be repeated for credit. F.
ENGLISH 351. Literature in English, 1660-1830
(3-4; 3 in the half-term). May not be repeated for credit. W.
ENGLISH 352. Literature in English, 1830-Present
(3-4; 3 in the half-term). May not be repeated for credit.
ENGLISH 360. The Rise of the Novel
(3). May not be repeated for credit.

ENGLISH 361. The Victorian Novel
(3). May not be repeated for credit.

ENGLISH 362. The American Novel
(3-4; 3 in the half-term). May not be repeated for credit.
ENGLISH 363. The Modern Novel
(3-4; 3 in the half-term). May not be repeated for credit.
ENGLISH 364. The Contemporary Novel
(3-4;2-3 in the half-term). May not be repeated for credit.
ENGLISH 366 / MEMS 366. Shakespeare's Contemporaries
(3-4; 3 in the half-term). May not be repeated for credit.
ENGLISH 367 / MEMS 367. Shakespeare's Principal Plays
(3-4;3 in the half-term). (HU). May not be repeated for credit.
ENGLISH 375. World Literatures in English
(3). (HU). May not be repeated for credit.

ENGLISH 379 / AAS 338. Literature in Afro-American Culture AAS 201. (3). (HU). May not be repeated for credit.

ENGLISH 380 / AAS 381 / WOMENSTD 381. Intersections: Fictions and Feminisms of the African Diaspora
AAS 111 (CAAS 111). (3). May not be repeated for credit.

ENGLISH 381 / AMCULT 324 / ASIANPAM 324. Asian American Literature
(3). (HU). May not be repeated for credit.

ENGLISH 382 / AMCULT 328 / NATIVEAM 328. Studies in Native American Literature
(3). (HU). May not be repeated for credit.

ENGLISH 383 / JUDAIC 389. Jewish Literature
(3). (HU). May not be repeated for credit.

ENGLISH 384 / AAS 384 / AMCULT 406. Caribbean Literature AAS 202. (3). May be repeated for a maximum of 6 credits.

ENGLISH 385 / AAS 385. African Literature
AAS 200. (3). (HU). May be elected twice for credit.
ENGLISH 387 / AMCULT 327 / LATINOAM 327. Latina/Latino Literature of the U.S.
(3). (HU). May not be repeated for credit. Taught in English.

ENGLISH 388 / AMCULT 325 / ASIANPAM 325. Pacific Literary and Cultural Studies
(3). (HU). May not be repeated for credit.

ENGLISH 389 / AAS 346 / HISTORY 362. Literature in African History
(3). (HU). (R\&E). May not be repeated for credit.

ENGLISH 390. Topics in Literary Criticism and Theory
(3). May not be repeated for credit.

ENGLISH 397. Honors Junior Seminar
Junior or senior standing, and permission of instructor. (3). May be repeated for a maximum of 9 credits.
ENGLISH 398. Junior Seminar in English Studies
(4; 3 in the half-term). May not be repeated for credit.
ENGLISH 403. Topics in Language and Rhetorical Studies
(3). May be elected twice for credit. May be elected more than once in the same term.

ENGLISH 405. Theories of Writing
(3). May not be repeated for credit.

ENGLISH 407. Topics in English Language and Literature
(3). May be elected twice for credit. May be elected more than once in the same term.

ENGLISH 408 / LING 408. Varieties of English
(3). May not be repeated for credit.

ENGLISH 409. Old English
(3). May not be repeated for credit.

ENGLISH 410. Middle English
(3). May not be repeated for credit.

ENGLISH 411. Art of the Film
(3). May not be repeated for credit.

ENGLISH 415 / WOMENSTD 414. Studies in Women and Literature
(3). May not be repeated for credit.

ENGLISH 416. Topics in Disability Cultures
(3). May not be repeated for credit.

ENGLISH 418. The Graphic Narrative
(3). May not be repeated for credit. Rackham credit requires additional work.

ENGLISH 420. Technology and the Humanities
(3). May not be repeated for credit.

## ENGLISH 423. Advanced Fiction Writing

Consent of instructor required. Open to seniors and graduate students. (3). May be repeated for a maximum of 6 credits.

ENGLISH 424. Advanced Poetry Writing
Consent of instructor required. (3). May be repeated for credit.
ENGLISH 425. Advanced Essay Writing
Open only to seniors who have completed the First-Year Writing Requirement. (3). May not be repeated for credit.

## ENGLISH 426. Directed Writing

Consent of instructor required. Junior standing. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits. $F, W, S p / S u, S p, S u$.

ENGLISH 427 / THTREMUS 427. Advanced Playwriting
Consent of instructor required. ENGLISH 327. (3; 2 in the half-term). May be repeated for a maximum of 6 credits.

## ENGLISH 428. Senior Creative Writing Tutorial

Consent of instructor required. ENGLISH 223, 323, and 423/429. (3). May not be repeated for credit.

## ENGLISH 432. Studies in Visual Culture

(3; 2-3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

ENGLISH 440. Modern Poetry
(3). May not be repeated for credit.

ENGLISH 441. Contemporary Poetry
(3). May not be repeated for credit.

ENGLISH 442. Studies in Poetry
(3). May not be repeated for credit.

## ENGLISH 443 / THTREMUS 321. History of Theatre I

(3). May not be repeated for credit.

ENGLISH 444 / THTREMUS 322. History of Theatre II
(3). May not be repeated for credit.

ENGLISH 447. Modern Drama
(3). May not be repeated for credit.

ENGLISH 449. Medieval Drama
(3). May not be repeated for credit.

ENGLISH 450. Studies in Medieval and Renaissance Literature
(3). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

ENGLISH 451. Studies in Literature, 1600-1830
(3). May be repeated for credit. May be elected more than once in the same term.

ENGLISH 460. Studies in the Novel
(3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

ENGLISH 463. Modern British Literature
(3). May not be repeated for credit.

ENGLISH 464. Studies in Individual Authors
(3). May be repeated for credit. May be elected more than once in the same term.

ENGLISH 465 / MEMS 465. Chaucer: The Canterbury Tales
(3). May not be repeated for credit.

ENGLISH 467. Topics in Shakespeare
Prior course work in Shakespeare is recommended. (3). May not be repeated for credit.
ENGLISH 469. Milton
(3). May not be repeated for credit.

ENGLISH 470. Colonial and Revolutionary American Literature
(3). May not be repeated for credit.

## ENGLISH 471. Nineteenth-Century American Literature

(3). May not be repeated for credit.

## ENGLISH 472. Twentieth-Century American Literature

(3). May not be repeated for credit.

ENGLISH 473. Topics in American Literature
(3; 2-3 in the half-term). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

ENGLISH 490. History of Literary Criticism and Theory
(3). May not be repeated for credit.

## ENGLISH 492. Special Topics in Language and Literature

(1-2; 1 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

## ENGLISH 495. Honors Colloquium: Drafting the Thesis

Consent of instructor required. Admission to the English Honors Program and permission of instructor. (3). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## ENGLISH 496. Honors Colloquium: Completing the Thesis

Consent of instructor required. ENGLISH 492, admission to the English Honors Program, and permission of instructor. (1-3). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. W.

## ENGLISH 498. Directed Teaching

Consent of instructor required. (3; 2 in the half-term). (INDEPENDENT). May be repeated for a maximum of 9 credits.

## ENGLISH 499. Directed Study

Consent of instructor required. Junior standing. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits. F, W, Sp, Sp/Su, Su.

## Courses in LSA English Language Institute

English Language Institute (ELI)

## ELI 321. Writing for Academic Purposes II

Consent of instructor required. Placement based upon performance in ELI 320 or the Academic English Evaluation (AEE). (1). May not be repeated for credit. A maximum of four ELI credits may be counted toward a degree.

ELI 351 / LING 351 / PSYCH 344. Second Language Acquisition LING 111 or 210. (3). (BS). May not be repeated for credit.

ELI 390 / EDUC 390 / LING 390 / RCSSCI 390. Community-Engaged Learning in ESL Teaching Contexts (3). (EXPERIENTIAL). May be elected three times for credit.

## ELI 391. English as a Second Language Topics

(3). May be elected twice for credit. A maximum of four ELI credits may be counted toward a degree.

ELI 395 / AMCULT 361 / EDUC 395 / LATINOAM 361 / LING 391 / RCSSCI 395. Principles and Practices of Teaching ESL in Migrant Communities
(3). (EXPERIENTIAL). May be elected three times for credit.

## ELI 396 / AMCULT 362 / EDUC 396 / LATINOAM 362 / LING 396 / RCSSCI 396. Migrant Community Outreach and ESL Teaching Practicum <br> ELI 395; completed with a minimum grade of C or better. (Prerequisites enforced at registration.) (2-3). (EXPERIENTIAL). May be elected three times for credit.

ELI 399. Individual Research and Study
Permission of Instructor. (1-4). (INDEPENDENT). May be repeated for a maximum of 4 credits. A maximum of four ELI credits may be counted toward a degree.

## Courses in LSA Environment

Program in the Environment (ENVIRON)
ENVIRON 101 / BIOLOGY 101. Food, Energy, and Environmental Justice
(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology.

ENVIRON 102 / CLIMATE 102 / EARTH 122. Extreme Weather
(3). (NS). (BS). May not be repeated for credit.

ENVIRON 105 / CHEM 105 / CLIMATE 105 / ENSCEN 105. Our Changing Atmosphere
(3). (NS). (BS). May not be repeated for credit.

ENVIRON 110 / AOSS 171 / BIOLOGY 110 / EARTH 171 / ENSCEN 171 / RCNSCI 110. Introduction to Global Change: The Science Behind Sustainability
(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology. Satisfies the geography requirement for State of Michigan certification for social studies teachers. F.

ENVIRON 111 / AOSS 172 / EARTH 172 / ENSCEN 172 / GEOG 111. Global Change: The Sustainability Challenge
(4). (ID). (BS). (QR/2). May not be repeated for credit. Satisfies the geography requirement for State of Michigan certification for social studies teachers. W.

ENVIRON 116 / EARTH 116. Introductory Geology in the Field
(5 in the half-term). (NS). (BS). May not be repeated for credit. Reduced credit: Students who have completed GEOSCI 117 or EARTH 117 or ENVIRON 117 receive 2 credits; GEOSCI 119 or 120 or EARTH 119 or 120 or ENVIRON 119 or 120, 3 credits; GEOSCI 205 AND 206 or EARTH 205 AND 206 or ENVIRON 206, 3 credits; one of GEOSCI 205 or 206 or EARTH 205 or 206 or ENVIRON 206, 4 credits. Su at Camp Davis, Wyoming.

## ENVIRON 118 / EARTH 118. Introductory Geology Laboratory

Prior or concurrent enrollment in EARTH 119, or 205 and 206, or 284. (1). (NS). (BS). May not be repeated for credit. No credit if completed an introductory course in geology (EARTH/ENVIRON 116, 117, or 120). F, W.

## ENVIRON 119 / EARTH 119. Introductory Geology Lectures

Concurrent enrollment in ENVIRON or EARTH (GEOSCI) 118 for the lab. (3-4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 116, 117, or 120, and no credit granted to those who have completed or are enrolled in EARTH 116, 117, or 120 or ENVIRON 116, 117, or 120. No credit granted to those who have completed both EARTH 205 (or GEOSCI 205) AND one of GEOSCI 206 or EARTH 206 or ENVIRON 206; Three credits granted to those who have completed one of GEOSCI 205 or 206, EARTH 205 or 206, or ENVIRON 206. F, W.

ENVIRON 120 / EARTH 120. Geology of National Parks and Monuments
(4). (NS). (BS). May not be repeated for credit. No credit if completed EARTH (GEOSCI)/ENVIRON 116,

117, or 119, or both EARTH (GEOSCI) 205 AND EARTH (GEOSCI)/ENVIRON 206. Only 3 credits with EARTH (GEOSCI) 205 or EARTH (GEOSCI)/ENVIRON 206.

ENVIRON 139. First-Year Seminar in the Environment
Enrollment restricted to first-year students, including those with sophomore standing. (3). (ID). May not be repeated for credit.

ENVIRON 201 / RCNSCI 202. Ecological Issues
(4). (NS). (BS). May not be repeated for credit.

ENVIRON 202 / EARTH 202. Introduction to Earth and Environmental Sciences in the Rockies (5). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 201. No credit granted to those who have completed or are enrolled in EARTH 201 or ENVIRON 209 or GEOG 201.

ENVIRON 203 / ORGSTUDY 203. Activism
(3). (SS). May not be repeated for credit.

ENVIRON 206 / EARTH 206. How the Earth Works: The Water Cycle and Environment
(2). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 116 or 117 or 119 or 120, and no credit granted to those who have completed or are enrolled in EARTH 116 or 117 or 119 or 120 or ENVIRON 116 or 117 or 119 or 120 . Those with credit for GEOSCI 109 or EARTH 109 may only elect EARTH 206 or ENVIRON 206 for 1 credit.

ENVIRON 207. Sustainability and Society
(3). (SS). May not be repeated for credit.

ENVIRON 208 / ORGSTUDY 208. Business and the Natural Environment
(3). (SS). May not be repeated for credit.

ENVIRON 209 / EARTH 201 / GEOG 201. Introduction to Environmental Science and Geography (4; 3 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 144 or 202 or EARTH 144 or 202 (or any combination thereof). Students who have completed EARTH 331 or GEOSCI 331 will receive only 3 credits. F.

## ENVIRON 211 / RCSSCI 211. Social Sciences and Environmental Problems

(4). (SS). May not be repeated for credit.

ENVIRON 222. Introduction to Environmental Justice
(3). (SS). (R\&E). May not be repeated for credit.

ENVIRON 223 / HISTORY 223. Trashed! A History of Garbage in the Modern World (4; 3 in the half-term). (ID). May not be repeated for credit.

ENVIRON 224 / HISTORY 224 / PUBPOL 224. Global Nuclear Proliferation
(4; 3 in the half-term). (SS). May not be repeated for credit.
ENVIRON 232 / EARTH 222. Introductory Oceanography
(3). (NS). (BS). (QR/2). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AOSS 203.

ENVIRON 233 / EARTH 223. Introductory Oceanography, Laboratory
(1). (NS). (BS). (QR/2). May not be repeated for credit.

ENVIRON 235. Economics of Natural Resources and Environment
(3). (SS). May not be repeated for credit.

ENVIRON 236 / HISTORY 236. Environment and History in Preindustrial Europe
(3). (ID). May not be repeated for credit.

ENVIRON 237 / HISTORY 237. Global Environmental History
(4; 3 in the half-term). (ID). May not be repeated for credit.
ENVIRON 238 / EARTH 238 / HISTORY 238 / NEAREAST 278. Zoom: A History of Everything
(4; 3-4 in the half-term). (ID). May not be repeated for credit.
ENVIRON 240 / PHIL 240. Environmental Ethics: Philosophical Underpinnings
(3; 2 in the half-term). (HU). May not be repeated for credit.
ENVIRON 242. Topics in Environmental Social Science
(1-4). (SS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

ENVIRON 243. Topics in Environmental Natural Science
(1-4). (NS). (BS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

ENVIRON 244. Topics in Culture and Environment
(1-4). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

ENVIRON 245. Interdisciplinary Environmental Topics
(1-4). (ID). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

ENVIRON 250 / CMPLXSYS 250 / PUBPOL 250. Social Systems, Energy, and Public Policy
(3). (QR/1). May not be repeated for credit.

ENVIRON 255 / BIOLOGY 255. Plant Diversity
(4). (NS). (BS). May not be repeated for credit.

ENVIRON 256 / ANTHRCUL 256. Culture, Adaptation, and Environment
(3). (SS). May not be repeated for credit.

ENVIRON 259 / EARTH 259. Earth's Future and a Resilient Human Society
(4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EARTH 111 or 159.

ENVIRON 270. Our Common Future: Ecology, Economics and Ethics of Sustainable Development
(4). (ID). May not be repeated for credit.

ENVIRON 277 / CLCIV 277 / HISTORY 277. Environmental History of the Ancient Mediterranean (3). (HU). May not be repeated for credit.

ENVIRON 281 / BIOLOGY 281. General Ecology
BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND a laboratory course in CHEM (BIOLOGY 172 and 173 are strongly recommended). (3). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 381 or ENVIRON 381.

## ENVIRON 284 / EARTH 284. Environmental Geology

(4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 148, and no credit granted to those who have completed or are enrolled in EARTH 148. Those with credit for GEOSCI 147 or EARTH 147 may elect EARTH 284 or ENVIRON 284 for only 3 credits.

ENVIRON 290. Food: The Ecology, Economics, and Ethics of Growing and Eating (3). (ID). May not be repeated for credit.

ENVIRON 300. Special Problems and Research
Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.
ENVIRON 301 / HISTART 301. Nature, Culture and Landscape
Junior/Senior/permission of instructor. (3). (HU). May not be repeated for credit.
ENVIRON 302. Topics in Environmental Social Science
(1-4). (SS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## ENVIRON 303. Topics in Environmental Natural Science

(1-4). (NS). (BS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## ENVIRON 304. Topics in Culture and Environment

$(1-4)$. $(H U)$. May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## ENVIRON 305. Interdisciplinary Environmental Topics

(1-4). (ID). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

ENVIRON 306. Global Water
(3). (SS). May not be repeated for credit.

ENVIRON 307 / POLSCI 309. Theoretical Perspectives on Environmental Change
POLSCI 101. (3-4). (SS). May be elected twice for credit.
ENVIRON 308. Sustainability and Health
(3). (SS). May not be repeated for credit.

ENVIRON 309 / EARTH 309. GIS Explorations of the Past, Present, and Future
General computer experience is required, including word processing, spreadsheets, and presentations.
(3). (ID). (BS). May not be repeated for credit.

ENVIRON 310. Toxicology: The Study of Environmental Chemicals and Disease BIOLOGY 162 or 172. (3). (NS). (BS). May not be repeated for credit.

ENVIRON 311 / EEB 320. Rivers, Lakes, and Wetlands: Introduction to Aquatic Ecosystems One course in BIOLOGY or permission of instructor. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ENVIRON 331/EEB 321 (Rivers, Lakes and Wetlands).

ENVIRON 312 / POLSCI 380 / PUBPOL 312. Environmental Politics and Policy
(3). May not be repeated for credit.

ENVIRON 315 / EEB 315. The Ecology and Evolution of Infectious Diseases
BIOLOGY 100; or BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (3). (NS). (BS). May not be repeated for credit.

ENVIRON 316 / EEB 316 / RCIDIV 316. Introduction to Food Systems
Consent of instructor required. (3). (ID). May not be repeated for credit.
ENVIRON 317. Conservation of Biological Diversity
(3). (NS). (BS). May not be repeated for credit.

ENVIRON 318 / EEB 318 / RCIDIV 318. Food, Land, and Society
One year of college-level Biology, Environmental Science or Environmental Studies; General Ecology recommended. (4). (ID). May not be repeated for credit. W.

ENVIRON 320. Environmental Journalism: Reporting About Science, Policy, and Public Health Completion of First-Year Writing Requirement. (3). (ID). May not be repeated for credit.

ENVIRON 321. Climate Change and Adaptation
(3). (SS). May not be repeated for credit.

ENVIRON 324. Introduction to Water Law and Policy
Previous course in Environmental or Public Policy. (3). (SS). May not be repeated for credit.
ENVIRON 325 / EARTH 325. Environmental Geochemistry
Introductory chemistry. (4). (NS). (BS). May not be repeated for credit.
ENVIRON 329 / ENGLISH 329. Environmental Writing and Great Lakes Literature Consent of department required. (5 in the half-term). (HU). May not be repeated for credit.

ENVIRON 331 / EEB 321. Rivers, Lakes, and Wetlands: Introduction to Aquatic Ecosystems (UMBS) Consent of department required. One course in BIOLOGY. (5 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ENVIRON 311/EEB 320 (Rivers, Lakes and Wetlands).

ENVIRON 333 / EARTH 333. The Inexhaustible Seas? Marine Resources and Environmental Issues EARTH (GEOSCI) 116, 119, 125, 120, 222, or 284. (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed GEOSCI 154, and no credit granted to those who have completed or are enrolled in EARTH 154.

ENVIRON 335 / AAS 322. Introduction to Environment Politics: Race, Class, and Gender (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

ENVIRON 337 / RCHUMS 337. Children Under Fire: Narratives of Sustainability (3). (HU). May not be repeated for credit.

ENVIRON 344 / EARTH 344. Sustainable and Fossil Energy: Options and Consequences Consent of department required. At least one previous course in physical sciences or engineering. (3 in the half-term). (NS). (BS). May not be repeated for credit.

ENVIRON 345 / POLSCI 331 / SOC 380. Environmental Public Opinion Analysis
(3). (SS). May not be repeated for credit.

ENVIRON 348 / EEB 348. Forest Ecosystems
Consent of department required. BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (5 in the halfterm). (NS). (BS). May not be repeated for credit. Su at Biological Station.

ENVIRON 350. The Built Environment: Introduction to Landscape Change
(3). May not be repeated for credit.

ENVIRON 354 / AMCULT 354 / ENGLISH 312. Camp Davis: History and Literature of the Rockies Consent of department required. (3 in the half-term). (HU). May not be repeated for credit. Su at Camp Davis, Wyoming. May not be taken pass/fail.

ENVIRON 360 / PSYCH 384. Behavior and Environment
(3). (SS). May not be repeated for credit.

ENVIRON 361 / PSYCH 385. The Psychology of Environmental Stewardship
(3). (SS). May not be repeated for credit.

## ENVIRON 362 / ANTHRBIO 362 / EEB 362. Primate Evolutionary Ecology

An introductory course on primates, ecology, or conservation biology is advised. No quantitative or statistical training is required. (3). (NS). (BS). May not be repeated for credit.

ENVIRON 365. International Environmental Policy
(3). May not be repeated for credit.

ENVIRON 367. Global Enterprise and Sustainable Development
Senior Standing. (3). May not be repeated for credit.
ENVIRON 370 / ARCH 423 / UP 423. Introduction to Urban and Environmental Planning (3-5). May not be repeated for credit.

ENVIRON 372 / EEB 372. General Ecology Laboratory
BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND concurrent or prior enrollment in BIOLOGY 281/ENVIRON 281. (3). (BS). May not be repeated for credit.

ENVIRON 375 / ECON 370. Environmental and Resource Economics
ECON 101. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 471 or 472, or NRE 571 or 583.

ENVIRON 376 / PHIL 376. Environmental Ethics-Living Well with Nature
(3). (HU). May not be repeated for credit.

ENVIRON 377. Literature and the Environment
(3). (HU). May not be repeated for credit.

ENVIRON 380 / EARTH 380. Mineral Resources, Economics, and the Environment
No previous courses in Geology or other sciences are required. (4; 3-4 in the half-term). (NS). (BS).
(QR/2). May not be repeated for credit.
ENVIRON 381 / EEB 381. General Ecology
BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173; AND a laboratory course in CHEM. (5 in the half-term). (BS). May not be repeated for credit.

ENVIRON 382 / EDCURINS 382. Introduction to Environmental Education for Sustainable Development (4). May not be repeated for credit.

ENVIRON 385 / HISTORY 385. The Environmental History of China
(4; 3 in the half-term). (SS). May not be repeated for credit.
ENVIRON 390 / RCIDIV 390. Environmental Activism: Citizenship in a Republic
It is best to have at least one environmental course prior to this class. (3). (ID). May not be repeated for credit.

## ENVIRON 391. Sustainability and the Campus

An introductory course in Environmental, Global Change, or related field (e.g., ENVIRON 110, 201, 270). (4). (ID). May not be repeated for credit.

## ENVIRON 398. Environment Internship Program

Consent of instructor required. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 9 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

ENVIRON 399. Junior Honors Seminar
Consent of instructor required. (3). May not be repeated for credit.
ENVIRON 402. Nature and History in the Huron River Watershed
(3). May not be repeated for credit. Rackham credit requires additional work.

## ENVIRON 403 / EARTH 408. Introduction to GIS in the Earth Sciences

An introductory geology or environmental sciences course (EARTH 116, 119, 120, 201, or 284) and MATH 116. (Prerequisites enforced at registration.) Although previous GIS experience is not required, students are expected to be familiar with desktop and mobile computing, and to be comfortable with at least one quantitative software program (Matlab, Excel, Mathematica, or R, as examples). (3). (BS). May not be repeated for credit.

ENVIRON 405. Urban Sprawl: Policy and Politics ENVIRON 350 or 370. (3). May not be repeated for credit.

## ENVIRON 407 / CEE 307. Sustainable Cities

Junior or Senior standing and two environmental science classes. (3). (BS). May not be repeated for credit.

ENVIRON 408. Land Use Policy, Law, and the Environment
Junior or senior status. (3). May not be repeated for credit.
ENVIRON 409 / EEB 487 / NRE 409. Ecology of Fishes
BIOLOGY 162 or 171, 172 and 173. (3-4). (BS). May not be repeated for credit. W. (Lectures: 3 credits; lectures and lab: 4 credits).

ENVIRON 410. American Environmentalism and the Frontier West Consent of instructor required. One ENVIRON course. (3). May not be repeated for credit.

## ENVIRON 412 / PUBPOL 412. Environmental Values in Public Policy

(3). May not be repeated for credit.

## ENVIRON 413 / COMM 413. Environmental Communication

COMM 261, COMM 281 or ENVIRON 211 strongly recommended. (3). May not be repeated for credit.

## ENVIRON 415 / EEB 424 / NRE 415. Behavioral Ecology and Conservation Biology

BIOLOGY 162 or 171 and completion or concurrent enrollment in either ENVIRON 415 or EEB 424 or NRE 415. (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 492.

## ENVIRON 418 / ORGSTUDY 418. Leadership and Environmental Stewardship in Organizations

(3). May not be repeated for credit.

## ENVIRON 421. Restoration Ecology

BIOLOGY/ENVIRON 281 and EEB/ENVIRON 372 OR EEB/ENVIRON 381. (4). (BS). May not be repeated for credit. Rackham credit requires additional work.

ENVIRON 422 / EEB 440 / NRE 422. Biology of Fishes
BIOLOGY 162 or 171, 172 and 173. (3). (BS). May not be repeated for credit. F.
ENVIRON 426 / CLIMATE 421 / EARTH 421. Introduction of Physical Oceanography MATH 115 and 116, and an introductory science course. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

ENVIRON 430 / EEB 489 / NRE 430. Soil Ecology
BIOLOGY 162 or 171 and 172 and 173, and General Chemistry. Concurrent enrollment in ENVIRON 436/EEB 436 and ENVIRON 435/NRE 435 highly recommended. (3). (BS). May not be repeated for credit. F.

ENVIRON 431 / EARTH 431. Terrestrial Biomes Past, Present and Future
BIOLOGY 171, or one of EARTH (GEOSCI) 116, 119, 120, or 205/206; or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

ENVIRON 433 / EEB 433 / NRE 433. Ornithology
BIOLOGY 171 and (172 or 174) and 173, or BIOLOGY 195 and 173. (4). (BS). May not be repeated for credit.

ENVIRON 436 / EEB 436 / NRE 436. Woody Plants: Biology and Identification
BIOLOGY 162 or 171. (4). (BS). May not be repeated for credit. Rackham credit requires additional work.
ENVIRON 442 / EARTH 442. Earth Surface Processes and Soils
MATH 115 and CHEM 130. (4). (BS). May not be repeated for credit.

## ENVIRON 446 / EARTH 446. Paleoclimatology

MATH 115 and 116 and EARTH 305, or permission of instructor. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

ENVIRON 448. Sustainability in Practice: Organizations and the Environment Introductory Environ Social Science course 200 level or above and STATS 250. (4). May not be repeated for credit.

ENVIRON 449 / NRE 449. Organizational Theory and Change: Issues in Implementing Environmental Programs and Policies
(3). May not be repeated for credit.

ENVIRON 450 / EARTH 450. Ecosystem Science in the Rockies
Introductory Geology [EARTH 119\&118 or 116 or 120, or ENVIRON $119 \& 118$ or 116], AND (either General Ecology [ENVIRON 281 or BIOLOGY 281] or Introductory Environmental Science [EARTH 201 or 202 or 284, or ENVIRON 209 or 202 or 284]). (Prerequisites enforced at registration.) At least two courses from the following list: Environmental Geochemistry EARTH 325), Geobiology (EARTH 313), Earth Materials (EARTH 315), Earth's Surface and Sediments (EARTH 305). (5 in the half-term). (NS). (BS). May not be repeated for credit.

ENVIRON 451 / EEB 451 / NRE 451. Biology of Mammals
BIOLOGY 171, (172 or 174) \& 173; or BIOLOGY 195 \& 173. (4). (BS). May not be repeated for credit.

## ENVIRON 460 / EARTH 460. Paleobiology and Paleoenvironments

At least two courses from following list: EARTH 305, EARTH 313, EARTH 418. (5). (BS). May not be repeated for credit. Rackham credit requires additional work.

## ENVIRON 461 / ANTHRBIO 461. Primate Conservation Biology

An introductory course on primates, ecology, or conservation biology is advised. No quantitative or statistical training is required. (3). (BS). May not be repeated for credit.

## ENVIRON 462. Topics in Environmental Social Science

At least one environmentally related course prior to this class. (1-4). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## ENVIRON 463. Topics in Environmental Natural Science

At least one environmentally related natural science course prior to this class. (1-4). (BS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## ENVIRON 464. Topics in Culture and Environment

At least one environmentally related course prior to this class. (1-4). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## ENVIRON 465. Interdisciplinary Environmental Topics

At least one environmentally related course prior to this class. (1-4). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

ENVIRON 467 / CHEM 467 / CLIMATE 467 / EARTH 465 / ENSCEN 467. Biogeochemical Cycles
MATH 116, CHEM 210, and PHYSICS 240 (or 260). (3). (BS). May not be repeated for credit. F, W.
ENVIRON 475 / EHS 588 / NRE 475. Environmental Law
(3). May not be repeated for credit.

## ENVIRON 476 / EEB 476 / NRE 476. Ecosystem Ecology

General Ecology and a 400-level course in Aquatic or Terrestrial Ecology. (3). (BS). May not be repeated for credit. W.

## ENVIRON 479 / EARTH 477. Hydrogeology

MATH 116; and High school knowledge of PHYSICS, CHEMISTRY, and EARTH (GEOSCI) or equivalent. (4). (BS). May not be repeated for credit.

ENVIRON 490. War and the Environment: A Lethal Reciprocity
Coursework in environment or political science. (3). May not be repeated for credit.

## ENVIRON 499 / NRE 499. Senior Honors Thesis

Consent of instructor required. ENVIRON 399 and permission of instructor. (1-6). (INDEPENDENT). May be repeated for a maximum of 6 credits. Continuing Course. $Y$ grade can be reported at end of the firstterm to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## Courses in LSA Exhibit Museum

Museum Methods (MUSMETH)
MUSMETH 405. Special Problems in Museum Methods
Permission of instructor; MUSMETH 406 is desired. (2-4). May be elected twice for credit. F.
MUSMETH 406 / UC 406. Special Problems in Museum Methods
(3). May be elected twice for credit. W.

MUSMETH 499. Independent Research
Permission of instructor. (1-4). (INDEPENDENT). May be elected three times for credit.

## Courses in LSA Geography

Geography (GEOG)
GEOG 111 / AOSS 172 / EARTH 172 / ENSCEN 172 / ENVIRON 111. Global Change: The Sustainability Challenge
(4). (ID). (BS). (QR/2). May not be repeated for credit. May not be included in a concentration plan. Satisfies the geography requirement for State of Michigan certification for social studies teachers. W.

## GEOG 145 / INTLSTD 101. Introduction to International Studies

(3). (SS). May not be repeated for credit. Meets the geography requirement for public teacher certification in the School of Education.

GEOG 201 / EARTH 201 / ENVIRON 209. Introduction to Environmental Science and Geography (4; 3 in the half-term). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GEOSCI 144 or 202 or EARTH 144 or 202 (or any combination thereof). Students who have completed EARTH 331 or GEOSCI 331 will receive only 3 credits. F.

GEOG 472 / UP 572. Transportation and Land Use Planning
Senior of Graduate Standing; and one of UP 510, UP 503, or another course in ECON and STATS. (Prerequisites enforced at registration.) (3). May not be repeated for credit. W.

## GEOG 591. Special Work in Human Geography

Consent of instructor required. (2-3). May be repeated for credit. Rackham credit requires additional work.

## Courses in LSA Germanic Languages \& Literatures

Dutch and Flemish Studies (DUTCH)

## DUTCH 111. First Special Speaking and Reading Course

(4). May not be repeated for credit. Graduate students should elect DUTCH 511. No credit granted to those who have completed or are enrolled in DUTCH 100. F.

## DUTCH 112. Second Special Speaking and Reading Course

DUTCH 111. (4). May not be repeated for credit. Graduate students should elect DUTCH 512. No credit granted to those who have completed or are enrolled in DUTCH 100. W.

## DUTCH 160. First Year Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). (R\&E). May not be repeated for credit. Taught in English. F.

## DUTCH 231. Second-Year Dutch

DUTCH 112 or 100. (4). May not be repeated for credit. Graduate students should elect DUTCH 531. F.

## DUTCH 232. Second-Year Dutch

DUTCH 231. (4). (Lang Req). May not be repeated for credit. Graduate students should elect DUTCH 532. W.

## DUTCH 339. Independent Study

Consent of instructor required. (2-4). (INDEPENDENT). May be repeated for credit. F, W, Sp.

## DUTCH 340. Amsterdam: Negotiating Tolerance

(3). (R\&E). May not be repeated for credit.

## DUTCH 351 / JUDAIC 351. Anne Frank in Context

(3). (HU). (R\&E). May not be repeated for credit.

German (GERMAN)

## GERMAN 100. Intensive Elementary Course

(8). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 101, 102103 or RCLANG 191.

## GERMAN 101. Elementary Course

All students with prior coursework in German must take the placement test. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 100, 103, or RCLANG 191. F, W, Su.

## GERMAN 102. Elementary Course

GERMAN 101. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 100, 103, or RCLANG 191. F, W, Sp.

## GERMAN 103. Review of Elementary German

Assignment by placement test or permission of department. (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 100, 101, 102, or RCLANG 191.

## GERMAN 111. First Special Reading Course

Permission of the department. (4). May not be repeated for credit. The course does not satisfy the LSA foreign language requirement. Taught in English.

## GERMAN 112. Second Special Reading Course

GERMAN 111 or placement test. (4). May not be repeated for credit. This course does not satisfy the LSA foreign language requirement. W, Su.

## GERMAN 127 / JUDAIC 101 / YIDDISH 101. Elementary Yiddish I

(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 431 or YIDDISH 431.

GERMAN 128 / JUDAIC 102 / YIDDISH 102. Elementary Yiddish II JUDAIC/YIDDISH 101. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 432 or YIDDISH 432.

## GERMAN 180. First Year Seminar

No knowledge of German is required. Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit. Taught in English.

## GERMAN 221. Accelerated Third Semester German

GERMAN 102 and assignment by placement test. (5). May not be repeated for credit. No credit granted to those who have completed GERMAN 230 or 231 . Four credits granted to those who have completed GERMAN 102 or 103.

GERMAN 227 / JUDAIC 201 / YIDDISH 201. Intermediate Yiddish I
JUDAIC/YIDDISH 102. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 531 or YIDDISH 531.

GERMAN 228 / JUDAIC 202 / YIDDISH 202. Intermediate Yiddish II
JUDAIC/YIDDISH 201. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 532 or YIDDISH 532.

## GERMAN 230. Intensive Second-Year Course

GERMAN 102 or 103 or equivalent and assignment by placement test, or permission of instructor. (8). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 221, 231, 232, or RCLANG 291.

## GERMAN 231. Second-Year Course

GERMAN 102 or 103 and assignment by placement test. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 230, 221, or RCLANG 291.

## GERMAN 232. Second-Year Course

GERMAN 221 or 231; or assignment by placement test. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 230 or RCLANG 291. All sections of GERMAN 232 address special topics, e.g., music, philosophy, science, current political issues, etc. $F, W, S p, S u$.

## GERMAN 243 / HONORS 254. Faust

(3; 2 in the half-term). (HU). May not be repeated for credit. Taught in English.
GERMAN 300. German Grammar and Composition
GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (4). May not be repeated for credit. Taught in German.

GERMAN 302. Topics in German Politics and Society
(3-4). (SS). May be elected three times for credit.
GERMAN 303. Topics in German Culture and the Arts
(3-4). (HU). May be elected three times for credit.
GERMAN 304. Studies in German Culture
(1 in the half-term). (HU). May be elected three times for credit. May be elected more than once in the same term.

GERMAN 306. Conversation Practice
GERMAN 230, 231, or 232; concurrent enrollment in a 300-level course is encouraged but not necessary. (1). May be elected three times for credit. This course does not satisfy the language requirement.

GERMAN 309 / HONORS 309 / JAZZ 309 / RCHUMS 307. Imagination
(3). (HU). May not be repeated for credit.

## GERMAN 310. Studies in German Culture

Residence in Max Kade German House; others by permission of instructor. (1). May be repeated for a maximum of 4 credits.

## GERMAN 312. Cityscapes

Consent of department required. Max Kade Resident or GERMAN 221/231 or 310. (1). May be elected four times for credit.

## GERMAN 315. Introduction to German Literature

GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3). (HU). May not be repeated for credit.

GERMAN 322 / HISTORY 322. The Origins of Nazism
(4). (HU). (R\&E). May not be repeated for credit. Taught in English.

## GERMAN 325. Intermediate German

GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3). May be elected twice for credit. May be elected more than once in the same term. Taught in German.

## GERMAN 326. Intermediate German

GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3). May be elected twice for credit. May be elected more than once in the same term. W. Taught in German.

GERMAN 327 / JUDAIC 301 / YIDDISH 301. Advanced Yiddish I
JUDAIC 102 or YIDDISH 202. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 631 or YIDDISH 631.

## GERMAN 328 / JUDAIC 302 / YIDDISH 302. Advanced Yiddish II

JUDAIC/YIDDISH 301. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 632 or YIDDISH 632.

GERMAN 329. Independent Study
Consent of instructor required. (1-4; 1-2 in the half-term). (INDEPENDENT). May be repeated for a maximum of 8 credits. F, W, Sp, Su.

GERMAN 332. Kino: German Film
GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3). (HU). May not be repeated for credit. Taught in German.

## GERMAN 333 / SAC 333. Fascist Cinemas

SAC 236. (3). (HU). (R\&E). May not be repeated for credit.
GERMAN 336. German in Song
GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3). (CE). May not be repeated for credit. Taught in German.

GERMAN 346 / AMCULT 346 / SAC 346. Media Matter: From Print to Screen Culture
(3). (HU). May not be repeated for credit.

GERMAN 350. Business German
GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3). May not be repeated for credit. Taught in German.

## GERMAN 351. Practice in Business German

Internship in a German-speaking country. (3). (EXPERIENTIAL). May not be repeated for credit.

## GERMAN 357. Tutoring High-School and K-8 German

Sophomore standing and above. Completion of one graded German course beyond GERMAN 300. (Prerequisites enforced at registration.) (3). (EXPERIENTIAL). May not be repeated for credit.

GERMAN 358. German Teaching Assistance for Children at the Deutsche Schule Ann Arbor (DSAA) Sophomore standing or beyond. Completion of two of the following courses: GERMAN 300, 325, 326, $332,336,350,351,357,380,385,425,426,430,431,454,457,464$, or 499. (1). (EXPERIENTIAL). May not be repeated for credit.

GERMAN 375 / MEMS 375 / SCAND 375. Celtic and Nordic Mythology
(3). (HU). May not be repeated for credit. Taught in English.

GERMAN 378. History of German Science
(3). (ID). May not be repeated for credit.

GERMAN 379 / POLSCI 386 / SOC 379. Sports, Politics, and Society
One introductory course in sociology or political science. (3). (SS). May not be repeated for credit. No credit for those who have completed SOC 212/GERMAN 212.

GERMAN 385. Short Fiction: Naturalism to the Present
GERMAN 230 or 232 or RCLANG 291 or the equivalent as per placement test results. (3; 2 in the halfterm). (HU). May not be repeated for credit. Taught in German.

## GERMAN 386. Fairy Tales

(3). (HU). May not be repeated for credit. Taught in English.

## GERMAN 388. Topics in German Literature

GERMAN 300, 315, 325, 326, 332, or 336. (3). (HU). May be elected three times for credit. May be elected more than once in the same term.

GERMAN 391 / HISTORY 386 / JUDAIC 386. The Holocaust
(4). (SS). (R\&E). May not be repeated for credit.

GERMAN 396 / AAS 395 / HISTORY 396. Germany and the Black Diaspora
(3). (HU). (R\&E). May not be repeated for credit.

## GERMAN 398. German Studies Topics in English Translation

(3-4; 3 in the half-term). May be elected twice for credit. May be elected more than once in the same term.

GERMAN 401 / HISTORY 416. Nineteenth-Century German and European Intellectual History (3). May not be repeated for credit. Taught in English.

GERMAN 402 / HISTORY 417. Twentieth-Century German and European Thought
(3). May not be repeated for credit. Taught in English.

## GERMAN 425. Advanced German

GERMAN 325, 326 or permission of instructor. (3). May not be repeated for credit. Taught in German. GERMAN 426 may be taken independently of GERMAN 425. Rackham credit requires additional work.

## GERMAN 426. Advanced German

GERMAN 325, 326 or permission of instructor. (3; 2 in the half-term). May not be repeated for credit. W. Taught in German. Rackham credit requires additional work.

GERMAN 430 / BA 499. Doing Business in German
One 300-level course taught in German or permission of instructor. (3). May not be repeated for credit. W. Taught in German.

## GERMAN 431. Business German: Management and Marketing

GERMAN 350 or 430. (3). May not be repeated for credit. Taught in German.
GERMAN 449. Special Topics in English Translation
(3-4; 3 in the half-term). May be elected three times for credit. May be elected more than once in the same term. Taught in English. Rackham credit requires additional work.

## GERMAN 457. Twentieth Century German Fiction

One year beyond GERMAN 232. (3; 2 in the half-term). May be elected twice for credit. Taught in German. Rackham credit requires additional work.

## GERMAN 464. Postwar German Ethnicities in Literature and Culture

One year beyond GERMAN 232. (3). (R\&E). May not be repeated for credit. Taught in German.

## GERMAN 470. Workshop in Translation

Two courses taught in German beyond GERMAN 232. (3). May not be repeated for credit.

## GERMAN 472. Un/Translatability in Theory and Practice

Two courses taught in German beyond GERMAN 232. (3). May not be repeated for credit.
GERMAN 491. German Honors Proseminar
Senior Honors standing. (3; 2 in the half-term). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of GERMAN 492, the final grade is posted for both term's elections. F.

## GERMAN 492. German Honors Proseminar

Senior Honors standing. (3; 2 in the half-term). May not be repeated for credit. W.

## GERMAN 499. Seminar in German Studies

One year beyond GERMAN 232. (3; 2 in the half-term). May be repeated for credit. May be elected more than once in the same term. Taught in German.

GERMAN 517 / ANTHRCUL 519 / LING 517. Principles and Methods of Historical Linguistics Graduate standing, or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.

## GERMAN 531 / EDCURINS 431. Teaching Methods

Senior standing; and candidate for a teaching certificate. (3). May not be repeated for credit. F.

## GERMAN 540. Introduction to German Studies

Permission of instructor. (3). May not be repeated for credit.
Scandinavian Studies (SCAND)
SCAND 103. Elementary Swedish
(4). May not be repeated for credit.

SCAND 104. Elementary Swedish
SCAND 103. (4). May not be repeated for credit. Students needing SCAND 103 or the equivalent for entry into SCAND 104 can meet this prerequisite by passing an examination by the instructor.

## SCAND 233. Second-Year Swedish

SCAND 104 or 100. (4). May not be repeated for credit.

## SCAND 234. Second-Year Swedish

SCAND 233. (4). (Lang Req). May not be repeated for credit. Students needing SCAND 233 or the equivalent for entry into SCAND 234 can meet this prerequisite by passing an examination given by the instructor.

SCAND 325. Third Year Swedish
SCAND 234. (Prerequisites enforced at registration.) (4). May be elected twice for credit.

## SCAND 331. Introduction to Scandinavian Civilization

(3). (HU). May not be repeated for credit. Taught in English.

SCAND 349. Independent Study
Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. F, W, Sp.

## SCAND 351. Practice in Business Swedish

SCAND 234, plus internship in a Scandinavian country. (3). (EXPERIENTIAL). May not be repeated for credit.

SCAND 375 / GERMAN 375 / MEMS 375. Celtic and Nordic Mythology
(3). (HU). May not be repeated for credit. Taught in English. F.

SCAND 442. The Icelandic Saga (in English Translation)
Upperclass standing or permission of instructor. (3). May not be repeated for credit. Taught in English.

## Courses in LSA Global and Intercultural Study

Study Abroad (STDABRD)
STDABRD 230. CGIS: Intermediate French Languages Studies in Grenoble, France
Minimum 4 semesters college-level French or equivalent. (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Grenoble, France). Su. Multiple Grading Patterns.

## STDABRD 235. CGIS: Advanced Language and Culture in Granada, Spain

Minimum five semesters collegelevel Spanish by program startd date fulfilled by any of the following or an equivalent: SPANISH 277 RCLANG 324. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

## STDABRD 238. CGIS: Arts in Barcelona, Spain

(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 240. CGIS: Language and Culture in Salamanca, Spain
Minimum four semesters college-level Spanish, as fulfilled by any of the following or the equivalent: SPANISH 230, SPANISH 232, RCLANG 294, or RCLANG 314. (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Salamanca, Spain) Su. Multiple Grading Patterns.

STDABRD 245. CGIS: Intensive Language and Culture in Santiago de Compostela, Spain (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 250. CGIS: Intensive Chinese Language in Beijing, China
At least two semesters college-level Chinese language study with 3.0 GPA. (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Beijing, China). Su. Multiple Grading Patterns.

STDABRD 255. CGIS: Contemporary China and Intensive Chinese Language in Beijing, China
Two semesters of college-level Chinese or equivalent. (1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

## STDABRD 257. CGIS: University Study in China - Fudan University (Shanghai)

(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 258. CGIS: University Study in China - University of Macau
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 260. CGIS: Italian Studies in Rome, Italy
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 265. CGIS: Intermediate Italian Language Studies in Ferrara, Italy
4 semesters of college level Italian or equivalent. (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 285. CGIS: Arts in Paris, France
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 301. CGIS: University Study in Canada - Memorial University of Newfoundland
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 303. CGIS: Environment and Sustainable Development in San Jose, Costa Rica
Minimum two semesters college-level Spanish, fulfilled by: SPANISH 100, SPANISH 102, RCLANG 194, or equivalent Background in appropriate social and natural sciences. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 304. CGIS: Intensive Arabic Language and Culture in Amman, Jordan
2 semesters of Modern Standard Arabic. (1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. Multiple Grading Patterns.

STDABRD 305. CGIS: Language and Culture in Rabat, Morocco
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. Multiple Grading Patterns.
STDABRD 306. CGIS: Advanced Language and Culture in Madrid, Spain
Minimum four semesters college-level Spanish by program start date fulfilled by any of the following or an equivalent: SPANISH 230, SPANISH 232, RCLANG 294, or RCLANG 314. (1-15). May be repeated for a maximum of 75 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 307. CGIS: University Study in Egypt - American University in Cairo
Consent of department required. (1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 308. CGIS: EcoQuest Field Studies in Whakatiwai, New Zealand
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 309. CGIS: Frontiers Abroad - Geology and Earth Systems Science in Auckland and Christchurch, New Zealand
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 310. CGIS: French Language and African Studies in Dakar, Senegal
Minimum 3.0 GPA overall and in French classes; minimum 3 semesters college-level French or equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 325. CGIS: Chinese Studies in Beijing, China
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Beijing, China). Su. Multiple Grading Patterns.

STDABRD 330. CGIS: Budapest Semesters in Mathematics in Budapest, Hungary
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 332. CGIS: Central European Studies at Charles University in Prague, Czech Republic
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Prague, Czech Republic). F, W. Multiple Grading Patterns.

STDABRD 340. CGIS: College Year in Athens, Greece
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 342. CGIS: Asian Culture and Society in Tokyo, Japan
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 343. CGIS: University Study in Japan - Hitotsubashi University (Tokyo)
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 344. CGIS: Contemporary London, in London, United Kingdom
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. May not be elected Pass/Fail. (London, England). Sp. Multiple Grading Patterns.

## STDABRD 345. CGIS: University Study in Germany - University of Tuebingen

$3-4$ semesters college-level German or equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Tübingen, Germany). F, W. Multiple Grading Patterns.

## STDABRD 346. CGIS: Advanced Russian Language and Culture in Russia

Minimum 4 semesters of college Russian, with average of $B$ or better in language courses. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Russia) $F$, W. Multiple Grading Patterns.

STDABRD 347. CGIS: University Study in Japan - Waseda University (Tokyo)
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 348. CGIS: Language and Culture in Kyoto, Japan
ASIANLAN 226 or equivalent for Fall/Academic Year. ASIANLAN 325 or equivalent for Winter. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Kyoto, Japan). F, W. Multiple Grading Patterns.

## STDABRD 349. CGIS: Language and Culture in Hikone, Japan

One year proficiency in Japanese. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Hikone, Shiga, Japan). F, W. Multiple Grading Patterns.

## STDABRD 350. CGIS: University Study in France - Sciences Po Aix-en-Provence

Minimum 6 semesters college level French or equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Marseille, France). F, W. Multiple Grading Patterns.

STDABRD 351. CGIS: Academic Year in Freiburg, Germany
Minimum two years of college-level German. (1-15). May be repeated for a maximum of 60 credits.
May be elected more than once in the same term. (Freiburg, Germany). F, W. Multiple Grading Patterns.
STDABRD 352. CGIS: University Study in Singapore - National University of Singapore
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 353. CGIS: Classical Studies (ICCS) in Rome, Italy
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Rome, Italy). F, W. Multiple Grading Patterns.

## STDABRD 354. CGIS: Metropolitan Studies in Berlin, Germany

(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 355. CGIS: Advanced French Language in Paris, France
5 semesters of college level French or equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 356. CGIS: European Union Summer Program in Brussels and Leuven, Belgium (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 360. CGIS: Intensive Chinese Language and Culture in Taipei, Taiwan
Minimum 2 semesters college-level Mandarin or the equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Taipei, Taiwan). F,W. Multiple Grading Patterns.

STDABRD 362. CGIS: Intensive Russian Language and Culture in St. Petersburg, Russia
Minimum 4 semesters-college Russian (oral proficiency score of Intermediate or better). (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (St. Petersburg, Russia). F,W. Multiple Grading Patterns.

## STDABRD 363. CGIS: Liberal Arts in Santiago, Chile

Successful completion of one of the following courses, or equivalent (with approval from your CGIS Intercultural Programs Advisor): SPANISH 275 \& 276, or SPANISH 277, or RCLANG 324 Spanish language course within the past year recommended. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Santiago, Chile). F, W. Multiple Grading Patterns.

STDABRD 364. CGIS: University Study in the UK - University of Sussex
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Brighton, England). F, W. Multiple Grading Patterns.

STDABRD 365. CGIS: Development and Globalization in Khon Kaen, Thailand
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 366. CGIS: Public Health in Santiago, Dominican Republic
College-level coursework in public health recommended. Minimum four semesters college-level Spanish, fulfilled by one of the following or equivalent: SPANISH 230, SPANISH 232, or RCLANG 294, RCLANG 314. (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Santo Domingo, Dominican Republic). Su. Multiple Grading Patterns.

STDABRD 374. CGIS: University Study in South Korea - Yonsei University (Seoul)
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Seoul, South Korea). F, W, Su. Multiple Grading Patterns.

STDABRD 375. CGIS: Cuban Culture and Society in Havana, Cuba
2 semesters of Spanish or equivalent. (1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 381. CGIS: Advanced Italian Language in Bologna, Italy
Minimum 5 semesters college-level Italian or equivalent (Winter); Minimum 4 semesters college-level Italian or equivalent (Academic Year). (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 382. CGIS: Language and Culture in Ferrara, Italy
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 383. CGIS: Language and Culture in Rome, Italy
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

## STDABRD 390. CGIS: Spanish Studies in Granada, Spain

Minimum four semesters college-level Spanish by program start date, fulfilled by one of the following or equivalent: SPANISH 230, SPANISH 232, SPANISH 294, RCLANG 314. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Granada, Spain). W. Multiple Grading Patterns.

STDABRD 401. CGIS: Study Abroad in Scandinavia (DIS) in Copenhagen, Denmark
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 402. CGIS: University Study in the Netherlands - Leiden University
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Leiden, The Netherlands). F, W. Multiple Grading Patterns.

STDABRD 403. CGIS: Quechua Langauge in Cusco, Peru
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 405. CGIS: Brazilian Studies and Portuguese Language in Sao Paulo, Brazil
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 410. CGIS: University of Geneva (UNIGE) in Geneva, Switzerland
FRENCH 235. Students with only FRENCH 232 must enroll in Oral Intermediate 2. Other students will attend the Summer 9-wk Session for beginners. Summer 3-wk or 6-wk session strongly recommended for coursework at UNIGE. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 440. CGIS: University Study in Ireland - University College Dublin
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 441. CGIS: STEM Summer Research Program in Dublin, Ireland
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 445. CGIS: STEM Summer Research Program in Glasgow, Scotland
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 451. CGIS: University Study in the UK - University of Oxford, Hertford College (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 452. CGIS: University Study in the UK - University of Oxford, St. Peter's College
(1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Oxford, England). Su. Multiple Grading Patterns.

STDABRD 456. CGIS: University Study in the UK - London School of Economics and Political Science (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (London, England). F, W. Multiple Grading Patterns.

STDABRD 458. CGIS: University Study in the UK - University of St. Andrews
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (St Andrews, Scotland). F, W. Multiple Grading Patterns.

STDABRD 459. CGIS: Spanish Literature and Culture in Seville, Spain
Minimum five semesters college-level Spanish by program start date, fulfilled by one of the following or equivalent: SPANISH 275, SPANISH 276, SPANISH 277, RCLANG 324. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Seville, Spain). F,W. Multiple Grading Patterns.

STDABRD 460. CGIS: Study Abroad in Scandinavia (DIS) in Stockholm, Sweden
(1-15; 1-10 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 461. CGIS: University Study in Sweden - Uppsala University
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Uppsala, Sweden). F,W. Multiple Grading Patterns.

STDABRD 462. CGIS: University Study in Sweden - Stockholm University
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

## STDABRD 463. CGIS: Central European Studies in Warsaw, Poland

(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Prague, Budapest or Warsaw). F,W. Multiple Grading Patterns.

STDABRD 465. CGIS: University Study in Switzerland - University of Lausanne
Completion of FRENCH 235 or equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Lausanne, Switzerland). F,W. Multiple Grading Patterns.

STDABRD 466. CGIS: University Study in Japan - Kyushu University
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Fukuoka, Japan). F, W. Multiple Grading Patterns.

STDABRD 468. CGIS: University Study in Australia - University of New South Wales (Sydney)
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Sydney, Australia). F,W. Multiple Grading Patterns.

STDABRD 472. CGIS: University Study in Turkey - Bogazici University (Istanbul)
(1-15; 1-8 in the half-term). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Istanbul, Turkey). Multiple Grading Patterns.

STDABRD 473. CGIS: Study in Istanbul, Turkey
(1-15). May be repeated for a maximum of 60 credits. Multiple Grading Patterns.
STDABRD 480. CGIS: University Study in the UK - King's College London
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

STDABRD 481. CGIS: University Study in the UK - Queen Mary University in London
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term.
(London, England). F, W. Multiple Grading Patterns.
STDABRD 483. CGIS: University Study in the UK - University College London
(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (London, England). F,W. Multiple Grading Patterns.

STDABRD 486. CGIS: University Study in France - Sciences Po Paris
Minimum 6 semesters college-level French (or the equivalent). Significant course work in political science
or other social science. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Paris, France). F,W. Multiple Grading Patterns.

## STDABRD 487. CGIS: University Study in South Africa - University of Cape Town

(1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. (Cape Town, South Africa). F,W. Multiple Grading Patterns.

STDABRD 489. CGIS: University Study in Australia - University of Melbourne
(1-15). May be repeated for a maximum of 75 credits. May be elected more than once in the same term. (Melbourne, Australia). F,W. Multiple Grading Patterns.

STDABRD 494. CGIS: Language and Culture in Buenos Aires, Argentina
Consent of department required. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

## STDABRD 496. CGIS: Advanced Spanish Language in Buenos Aires, Argentina

Minimum 4 semesters college-level Spanish by program start date, fulfilled by: SPANISH 232, SPANISH 230, RCLANG 294, RCLANG 314, or equivalent. (1-15). May be repeated for a maximum of 60 credits. May be elected more than once in the same term. Multiple Grading Patterns.

## Courses in LSA History

History (HISTORY)
HISTORY 101 / INTLSTD 205. What is History?
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
HISTORY 102. A History of the Present
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 103. Introduction to History in the Humanities
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 105. Introduction to Religion
(4; 3 in the half-term). (ID). (R\&E). May not be repeated for credit.
HISTORY 195. The Writing of History
(4). (FYWR). May not be repeated for credit. This course may not be included in a History major. F.

HISTORY 196. First Year Seminar in Social Sciences
Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

## HISTORY 197. First-Year Seminar in the Humanities

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

HISTORY 200. Ancient Greece to 323 B.C.E.
(4). (HU). May not be repeated for credit. F.

HISTORY 201. Rome
(4). (HU). May not be repeated for credit. W.

HISTORY 202. Doing History
(3). May not be repeated for credit. HISTORY 202 is a required gateway seminar for history concentrators, to be taken the academic term after declaring the concentration.

HISTORY 203 / ASIAN 200. Introduction to Japanese Civilization
(4). (HU). May not be repeated for credit.

HISTORY 204 / ASIAN 204. East Asia: Early Transformations
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
HISTORY 205 / ASIAN 205. Modern East Asia
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 206 / ASIAN 206. Indian Civilization
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 207 / ASIAN 207. Southeast Asian Civilization
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

HISTORY 210 / MEMS 210. Early Medieval Europe, 300-1000
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit. F.
HISTORY 211 / MEMS 211. Later Medieval Europe, 1000-1500
(4). (SS). (R\&E). May not be repeated for credit. W.

HISTORY 212 / MEMS 212. Renaissance Europe
(4). (HU). May not be repeated for credit.

HISTORY 215. The History of Disaster
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 216. War and Society in the 20th Century: World War I
(3-4; 3 in the half-term). May not be repeated for credit.
HISTORY 219 / ASIAN 210. The Philippines: Culture and History
(3). (HU). (R\&E). May not be repeated for credit.

HISTORY 221. Survey of British History from 1688
(4). (SS). May not be repeated for credit.

HISTORY 223 / ENVIRON 223. Trashed! A History of Garbage in the Modern World (4; 3 in the half-term). (ID). May not be repeated for credit.

HISTORY 224 / ENVIRON 224 / PUBPOL 224. Global Nuclear Proliferation (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 226 / AAS 236 / AMCULT 226 / LACS 226 / LATINOAM 226. The Latin Tinge: Latin Music in Social Context in Latin America and the U.S.
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
HISTORY 227. The Rise and Fall of the British Empire
(4). May not be repeated for credit.

HISTORY 229 / ANTHRCUL 226. Introduction to Historical Anthropology
(3). (SS). May not be repeated for credit.

HISTORY 230. Humanities Topics in History
(3-4; 3 in the half-term). (HU). May be elected five times for credit.
HISTORY 231. Social Science Topics in History
(3-4; 3 in the half-term). (SS). May be elected five times for credit.
HISTORY 232. Interdisciplinary Topics in History
(3-4; 3 in the half-term). (ID). May be elected three times for credit. May be elected more than once in the same term.

HISTORY 233. History of Sexually Transmitted Diseases from Syphilis to AIDS
(4; 3 in the half-term). (ID). May not be repeated for credit.

HISTORY 234. History of Medicine in the Western World from the 18th Century to the Present (4; 3 in the half-term). (ID). May not be repeated for credit.

HISTORY 235 / POLSCI 316. History of Law and Social Justice
(3-4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 236 / ENVIRON 236. Environment and History in Preindustrial Europe
(3). (ID). May not be repeated for credit.

HISTORY 237 / ENVIRON 237. Global Environmental History
(4; 3 in the half-term). (ID). May not be repeated for credit.
HISTORY 238 / EARTH 238 / ENVIRON 238 / NEAREAST 278. Zoom: A History of Everything (4;3-4 in the half-term). (ID). May not be repeated for credit.

HISTORY 239. The World Before 1492
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 240. The World Since 1492
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit. Meets pre-1800 and transregional requirements in History.

HISTORY 241. America and Middle Eastern Wars
(4). (SS). May not be repeated for credit.

HISTORY 243 / MENAS 243. The Dawn of Islamic History
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 244 / JUDAIC 244 / MENAS 244 / NEAREAST 284. The History of the Arab-Israeli Conflict (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

HISTORY 245 / AAS 245. Islam in Africa
Students will receive no credit if previously taken as HISTORY 357, Topic 3 "Islam in Africa". (Prerequisites enforced at registration.) (3-4; 3 in the half-term). (HU). May not be repeated for credit.

HISTORY 246 / AAS 246. Africa to 1850
(4; 3 in the half-term). (SS). May not be repeated for credit.

## HISTORY 247 / AAS 247. Modern Africa

(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 248 / ASIAN 248 / RELIGION 248. Jesus Comes to Asia: Conversion and its Consequences in Asia
(4). (HU). (R\&E). May not be repeated for credit.

HISTORY 249 / ASIAN 274. Introduction to Korean Civilization (3). (HU). May not be repeated for credit.

HISTORY 250. China from the Oracle Bones to the Opium War (3). (HU). May not be repeated for credit. F.

HISTORY 251 / ASIAN 241. The Chinese Renaissance: Cultural Transformations in Eleventh-Century China
(3). (ID). May not be repeated for credit.

HISTORY 252 / ASIAN 260. Introduction to Chinese Civilization
(4). (HU). (R\&E). May not be repeated for credit. No assumed knowledge of Chinese history, culture, or language required.

HISTORY 253 / MEMS 253. Europe, 300-1648: The Rise and Fall of the Middle Ages
(4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 254. Europe, 1648-Present: Legacies of War, Empire, and Revolution (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 255 / ASIAN 259. The History of Modern South Asia
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit. W.
HISTORY 257 / CLCIV 257 / JUDAIC 257. Ancient Law
(3). (HU). May not be repeated for credit.

HISTORY 258 / JUDAIC 210. Sources of Jewish History
(4). (HU). May not be repeated for credit.

HISTORY 260. United States to 1865
(4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 261. United States, 1865 to the Present
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 262 / AMCULT 263. The American South
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 266. Twentieth-Century American Wars as Social and Personal Experience
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 267 / AAS 267 / AMCULT 267. Religion in the Making of African America
(3). May not be repeated for credit.

HISTORY 269 / JUDAIC 260 / RELIGION 260. Introduction to the Talmud and the Rabbis
(3). (HU). May not be repeated for credit.

HISTORY 270 / AMCULT 270. Religion in America
(4). (HU). May not be repeated for credit.

HISTORY 272 / AAS 262. The Modern Civil Rights Movement
(4; 3 in the half-term). (R\&E). May not be repeated for credit.
HISTORY 274 / AAS 230. Survey of Afro-American History I
AAS 111. (3). (SS). May not be repeated for credit.

HISTORY 275 / AAS 231. Survey of Afro-American History, II
AAS 111. (3). (SS). May not be repeated for credit.
HISTORY 277 / CLCIV 277 / ENVIRON 277. Environmental History of the Ancient Mediterranean (3). (HU). May not be repeated for credit.

HISTORY 280. The Civil War Era in U.S. History
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 282. A History of the Economy
(4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 284 / AMCULT 284. Sickness and Health in Society: 1492 to the Present
First-year students must obtain permission of the instructor. (3-4; 3 in the half-term). (SS). May not be repeated for credit. Those who miss the first meeting without advance permission will be dropped from the course.

HISTORY 285 / RCSSCI 275. Science, Technology, Medicine, and Society
(4). (SS). May not be repeated for credit.

HISTORY 287 / ARMENIAN 287. From Natives to Foreigners: Armenians in Turkey and the Diaspora (3). (SS). May not be repeated for credit. Taught in English.

HISTORY 288 / ASIAN 275. India Calling: Culture and Society in Contemporary India (3). (HU). May not be repeated for credit.

HISTORY 290 / JUDAIC 290 / NEAREAST 287. Jews and Muslims
(3). (HU). May not be repeated for credit.

HISTORY 296 / PSYCH 296 / WOMENSTD 296. Gender, Sex Differences, and Addiction: Girls Gone Wild (3-4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 300 / ASTRO 300. The Beginning and The End: A History of Cosmology
(3). (ID). May not be repeated for credit.

HISTORY 301 / ASTRO 301. Discovery of the Universe
(3). (ID). May not be repeated for credit.

HISTORY 302 / CLCIV 302. The Roman Republic
(4). (HU). May not be repeated for credit.

HISTORY 303 / CLCIV 303 / WOMENSTD 303. Roman Women
(3). (HU). May not be repeated for credit.

HISTORY 304. Interdisciplinary Topics in History
(3-4; 3 in the half-term). (ID). May be elected five times for credit. May be elected more than once in the same term.

HISTORY 306 / NEAREAST 319. History of the Ottoman Empire: The "Classical Age", (ca. 1300-1600) Not available to students who have completed AAPTIS 291 (\#16) or HISTORY 303 (\# 10) when taught with
the topic "Ten Sultans, One Empire: The Ottoman Classical Age". (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

HISTORY 307 / NEAREAST 320. History of the Ottoman Empire: The "Post-Classical Age", (ca. 16001922)

Not available to students who have completed AAPTIS 291 (\#17) or HISTORY 303 (\# 13) when taught with the topic "The Ottoman Empire in the 'Post Classical Age'". (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

HISTORY 308 / ASIAN 307 / RELIGION 307. Eat, Pray, Love: Devotional Traditions in South Asia ASIAN 220 or 225. (3). (HU). May not be repeated for credit.

HISTORY 309. After Alexander: The Hellenistic Age in the Mediterranean and the Near East HISTORY 200 or 201. (3). (HU). (R\&E). May not be repeated for credit.

HISTORY 310 / RCSSCI 310. Globalization in History: the Making of the Modern World
Sophomores and above. (4). (SS). May not be repeated for credit.
HISTORY 312 / POLSCI 362. History of European Integration
(4; 3 in the half-term). (ID). May not be repeated for credit.
HISTORY 313 / FRENCH 344. The Revolutionary Century: France, 1789-1900
(4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 315 / AMCULT 308. American Constitutional History
Students should have a good general knowledge of United States History, such as that acquired in HISTORY 260 and 261, or equivalent rigorous high school history courses. (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 316 / MEMS 316 / WOMENSTD 316. Women and Gender in Medieval Europe: 500-1500 One course in Women's Studies or History. (3). (SS). May not be repeated for credit.

HISTORY 317 / MEMS 317 / WOMENSTD 317. Women and Gender in Early Modern Europe, 1500-1800 At least one course in WOMENSTD or HISTORY. (3). (HU). May not be repeated for credit.

HISTORY 318. Europe in the Era of Total War, 1870-1945
(4; 3 in the half-term). (SS). May not be repeated for credit. F.
HISTORY 319. Europe Since 1945
(4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 320. Britain, 1901-1939: Culture and Politics
(4; 3 in the half-term). (R\&E). May not be repeated for credit.
HISTORY 321. Culture and Politics in Britain Since 1945
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 322 / GERMAN 322. The Origins of Nazism
(4). (HU). (R\&E). May not be repeated for credit. Taught in English.

HISTORY 323 / FRENCH 343 / MEMS 323. French Enlightenment (3). (HU). May not be repeated for credit.

HISTORY 324. Muslims in Contemporary Europe
(3). (HU). (R\&E). May not be repeated for credit.

HISTORY 325 / ASIAN 324 / MEMS 325 / NEAREAST 375 / RELIGION 325. The History of Islam in South Asia
(4). (HU). (R\&E). May not be repeated for credit.

HISTORY 326 / ITALIAN 314. Modern Italy: 1815 to Present
(3). May not be repeated for credit.

HISTORY 327 / WOMENSTD 327. The History of Sexuality
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 328. Humanities Topics in History
(3-4; 3 in the half-term). (HU). May be elected five times for credit.
HISTORY 329. Social Science Topics in History
(3-4; 3 in the half-term). (SS). May be elected five times for credit.
HISTORY 331 / POLISH 331. Poland in the Modern World
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 332 / POLSCI 395 / REEES 395 / SLAVIC 395 / SOC 392. Russia and the Soviet Union: Reform, Revolution, and the Socialist Experiment
(4; 3 in the half-term). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor. F.

HISTORY 334 / AAPTIS 364 / MENAS 334. Selected Topics in Near and Middle Eastern Studies (1-3). May not be repeated for credit.

HISTORY 335 / AMCULT 385 / LATINOAM 385. Immigration Law: Critical Approaches to Contemporary Issues
(3-4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 336 / AAS 336 / WOMENSTD 336. Black Women in the United States, Part I: From the American Revolution through the Women's Era
AAS 201 (CAAS 201). (3). May not be repeated for credit. No credit granted to those who completed AAS 337 prior to Winter 2012.

HISTORY 339 / ASIAN 365 / CLCIV 339. Doctors in the Ancient World: China, Greece, and Rome (3). (HU). May not be repeated for credit.

HISTORY 340 / ASIAN 340 / MENAS 340 / NEAREAST 340 / REEES 340. From Genghis Khan to the Taliban: Modern Central Asia
(4; 3-4 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 343 / AMCULT 341. Rise of the Corporation
(3). (SS). May not be repeated for credit.

HISTORY 345 / RCSSCI 357. History and Theory of Punishment (4). May not be repeated for credit.

HISTORY 346 / AMCULT 348. History of American Radicalism (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 347 / ANTHRCUL 346. Latin America: The Colonial Period
(4). (SS). May not be repeated for credit.

HISTORY 348. Latin America: The National Period
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 349 / LACS 349. Revolutionary Movements in Modern Latin America (4; 3 in the half-term). (ID). May not be repeated for credit.

HISTORY 352. Imperial China: Ideas, Men, and Society
(3). May not be repeated for credit.

HISTORY 353 / AMCULT 366 / WOMENSTD 366. Sex and Sexuality in U.S. Popular Culture (3). (HU). May not be repeated for credit.

HISTORY 354 / ASIAN 354. War, Rebellion and Revolution in China Through Two Centuries (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 355 / AAS 355 / ANTHRCUL 355. Health and Illness in African Worlds
(4; 3 in the half-term). (R\&E). May not be repeated for credit.
HISTORY 356 / AMCULT 331 / WOMENSTD 356. Health in America: Patterns, Experiences, and Inequalities
(3-4). (ID). (R\&E). May not be repeated for credit.
HISTORY 357. Topics in African History
(3). May be elected three times for credit.

HISTORY 358. Topics in Latin American History
(3). May be elected three times for credit.

HISTORY 359. Visions of the Past
(3). May not be repeated for credit.

HISTORY 360. September 11
(3). May not be repeated for credit.

HISTORY 361. U.S. Intellectual History, 1750-1940
(3). (HU). May not be repeated for credit.

HISTORY 362 / AAS 346 / ENGLISH 389. Literature in African History
(3). (HU). (R\&E). May not be repeated for credit.

HISTORY 363. The U.S. and the World Since 1945: Politics, Culture, and War in the American Century (4; 3 in the half-term). May not be repeated for credit.

HISTORY 365. New York Modern: The Cultures of the Great Metropolis, 1800-Present (4; 3 in the half-term). (HU). May not be repeated for credit.

HISTORY 367 / AMCULT 367 / NATIVEAM 367. American Indian History
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 368 / AMCULT 342 / WOMENSTD 360 . History of the Family in the U.S.
(4; 3 in the half-term). (ID). May not be repeated for credit.
HISTORY 369 / AMCULT 369. The History of U.S. Mass Culture From Minstrelsy to Hip Hop (4; 3 in the half-term). (HU). May not be repeated for credit.

HISTORY 372 / WOMENSTD 372. Women and Gender in European History
(3). May not be repeated for credit.

HISTORY 373 / AMCULT 373. History of the U.S. West
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTORY 374 / AMCULT 374. The Politics and Culture of the "Sixties"
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
HISTORY 375 / WOMENSTD 375. A History of Witchcraft: The 1692 Salem Trials in Historical and CrossCultural Perspective
(4). (HU). May not be repeated for credit.

HISTORY 376. Epidemics: Plagues and Cultures from the Black Death to the Present (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 377 / AMCULT 315 / LATINOAM 315. History of Latina/os in the U.S.
(3-4). (R\&E). May not be repeated for credit. No credit granted to those who have completed or are enrolled in AMCULT 312 or HISTORY 312.

HISTORY 378 / AMCULT 314 / ASIANPAM 314. History of Asian Americans in the U.S.
(4; 3 in the half-term). (SS). May not be repeated for credit.
HISTORY 381 / CLCIV 380 / JUDAIC 380 / RELIGION 382. Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest
(3). (ID). May not be repeated for credit. No credit granted for students who have taken both ACABS 322 and ACABS 326.

HISTORY 384 / JUDAIC 388. Antisemitism and Philosemitism: Jews in Myth and Thought (3). (HU). (R\&E). May not be repeated for credit.

HISTORY 385 / ENVIRON 385. The Environmental History of China (4; 3 in the half-term). (SS). May not be repeated for credit.

HISTORY 386 / GERMAN 391 / JUDAIC 386. The Holocaust
(4). (SS). (R\&E). May not be repeated for credit.

HISTORY 387 / AMCULT 387 / JUDAIC 387. History of American Jews
(4; 3 in the half-term). May not be repeated for credit.

HISTORY 388 / AAS 323 / WOMENSTD 323. Black Feminist Thought and Practice
(3). May not be repeated for credit.

HISTORY 390. Topics Mini-Course
(1-2). May be elected three times for credit.
HISTORY 391. Topics in European History
(3). May be repeated for a maximum of 6 credits.

HISTORY 392. Topics in Asian History
(3). May be elected twice for credit.

HISTORY 393. Topics in U.S. History
(3). May be repeated for a maximum of 6 credits.

HISTORY 394 / NEAREAST 376. History of the Turkish Republic
(3). (HU). May not be repeated for credit.

HISTORY 395. Reading Course
Consent of department required. Open only to History concentrators. (1-4;1-3 in the half-term). (INDEPENDENT). May be repeated for a maximum of 8 credits. A maximum of eight credits can be elected through HISTORY 394 and 395. For the purposes of history concentration credit, no more than eight credits may be elected from HISTORY 395 (Independent Study).

HISTORY 396 / AAS 395 / GERMAN 396. Germany and the Black Diaspora
(3). (HU). (R\&E). May not be repeated for credit.

HISTORY 399. Topics in History
(3-4; 3 in the half-term). May be elected five times for credit.
HISTORY 400. Problems in Greek History I
(3). May not be repeated for credit.

HISTORY 403. Problems in Roman History II
(3). May not be repeated for credit.

HISTORY 405 / CLCIV 476 / RELIGION 476. Pagans and Christians in the Roman World (4; 3 in the half-term). May not be repeated for credit.

HISTORY 407. Advanced Study in Comparative and Transnational History
(3-4; 3 in the half-term). May be elected three times for credit. May be elected more than once in the same term.

HISTORY 408. The Byzantine Empire, 284-1453
(3; 2 in the half-term). May not be repeated for credit.
HISTORY 411 / POLSCI 319. The Politics of Civil Liberties and Civil Rights
POLSCI 111. (4; 3 in the half-term). May not be repeated for credit.

HISTORY 415 / ASIAN 415. Law and Society in Late Imperial and Modern China
Junior or senior standing. No prior knowledge of China or Chinese required. (3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 416 / GERMAN 401. Nineteenth-Century German and European Intellectual History
(3). May not be repeated for credit. Taught in English.

HISTORY 417 / GERMAN 402. Twentieth-Century German and European Thought
(3). May not be repeated for credit. Taught in English. German concentrators must be concurrently enrolled in GERMAN 404.

HISTORY 421 / AAS 421 / LACS 421 / RELIGION 421. Religions of the African Diaspora
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 424 / ASIAN 424. Topics in Modern South Asian History
(3-4; 3 in the half-term). May be elected three times for credit. May be elected more than once in the same term. Rackham credit requires additional work.

HISTORY 428 / NEAREAST 413. The Rise of Islam
Junior standing or permission of instructor. Taught in English. (3). May not be repeated for credit.
HISTORY 429 / NEAREAST 432 / RELIGION 496 / WOMENSTD 471. Gender and Sexuality in Pre-Modern Islam
Students should preferably have had one course in Is/amic Studies. (3). May not be repeated for credit.
HISTORY 432. Medieval and Early Modern Russia
(3). May not be repeated for credit.

HISTORY 433. Russia Under the Tsars: From Peter the Great to the Revolutions of 1917
(3). May not be repeated for credit.

HISTORY 434. Russia in the 20th Century: War, Revolution, and Reform
(4). May not be repeated for credit. W.

HISTORY 440 / AMCULT 440. American Thought and Culture Since 1940
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 443 / NEAREAST 487. Modern Middle East History
(4). May not be repeated for credit.

HISTORY 445. Topics in History
(3). May be elected three times for credit.

HISTORY 446. Social and Intellectual History of Modern China
(3). May not be repeated for credit.

HISTORY 449. Topics in Middle Eastern History
(3). May not be repeated for credit.

HISTORY 450 / ASIAN 450. Japan to 1700: Origin Myth to Shogun Dynasty
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 451 / ASIAN 451. Japan's Modern Transformations
(3). May not be repeated for credit.

HISTORY 454 / AMCULT 353 / ASIANPAM 353. Asians in American Film and Television
(4; 3 in the half-term). (ID). (R\&E). May not be repeated for credit.
HISTORY 457. The History of Colonial India
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 460. Colonial America
(3). May not be repeated for credit.

HISTORY 461 / AMCULT 462. The American Revolution
(4; 3 in the half-term). May not be repeated for credit. Rackham credit requires additional work.
HISTORY 463. Antebellum Society and the Civil War
(3). May not be repeated for credit. W.

HISTORY 466. Building American Empire: War, Politics, and Social Reform in the US, 1901-1950
(4). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 469. Precolonial Southeast Asia
(3). May not be repeated for credit.

HISTORY 470 / ASIAN 464 / RELIGION 464. From Mystic Saints to Holy Warriors: Islam in Southeast Asia
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 472. Topics in Asian History
(3). May be elected three times for credit.

HISTORY 473 / AAS 473 / LACS 483. Brazil: History and Culture
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 474. From Colonial Saint-Domingue to Independent Haiti: History and Culture of an Exceptional Colonial and Post-Colonial Territory
(3). May not be repeated for credit.

HISTORY 476 / BA 476. American Business History
Junior, senior, or graduate standing. (3). May not be repeated for credit.
HISTORY 477. Law, History, and the Dynamics of Social Change
(2-3). May not be repeated for credit.
HISTORY 478. Topics in Latin American History
(3). May not be repeated for credit.

HISTORY 480. Conflict and Diplomacy in the Caucasus
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 481. Topics in European History
(3). May be elected three times for credit.

HISTORY 487. Conversions and Christianities in the Early Modern World and Beyond
(3). May not be repeated for credit.

HISTORY 489. Roman Catholicism and the Modern World
(4; 3 in the half-term). May not be repeated for credit.
HISTORY 490. The Left in Europe: Democracy and its Horizons, 1789-2014
(3). May not be repeated for credit. Rackham credit requires additional work.

## HISTORY 494 / ECON 494. Topics in Economic History

ECON 401 (completed with a minimum grade of C- or better); or Graduate Standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

HISTORY 495. The World the Mongols Made
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTORY 496. History Colloquium
Consent of department required. HISTORY 202. (4; 3 in the half-term). May be repeated for a maximum of 8 credits.

## HISTORY 497. History Colloquium

Consent of department required. HISTORY 202. (4; 3 in the half-term). May be repeated for a maximum of 8 credits.

## HISTORY 498. Junior Honors Colloquium

Consent of instructor required. Honors students; junior standing, and permission of instructor. (4; 3 in the half-term). May not be repeated for credit.

## HISTORY 499. Senior Honors Colloquium

Consent of instructor required. Honors students, HISTORY 398, senior standing. (1-6). (INDEPENDENT). May be repeated for a maximum of 6 credits.

HISTORY 537 / NEAREAST 419. The Near East in the Period of the Crusades, 945-1258
Junior standing. (3). (R\&E). May not be repeated for credit. Taught in English.
HISTORY 595 / AAS 595. Topics in African History
CAAS 200. (3). May not be repeated for credit.
Medieval and Early Modern Studies (MEMS)
MEMS 210 / HISTORY 210. Early Medieval Europe, 300-1000 (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit. F.

MEMS 211 / HISTORY 211. Later Medieval Europe, 1000-1500
(4). (SS). (R\&E). May not be repeated for credit. W.

MEMS 212 / HISTORY 212. Renaissance Europe
(4). (HU). May not be repeated for credit.

MEMS 240 / HISTART 240. The Visual Arts in Medieval Society
(3). (HU). May not be repeated for credit.

MEMS 250 / HISTART 250. Italian Renaissance Art
(4). (HU). May not be repeated for credit.

MEMS 253 / HISTORY 253. Europe, 300-1648: The Rise and Fall of the Middle Ages (4; 3 in the half-term). (SS). May not be repeated for credit.

MEMS 260. Special Topics in Medieval and Early Modern Studies
(3). May be elected twice for credit. May be elected more than once in the same term.

MEMS 261. Interdisciplinary Topics in the Middle Ages
(3-4; 3 in the half-term). (ID). May be elected twice for credit.
MEMS 310 / RCHUMS 310. Pagans, Christians, Barbarians in Late Antiquity and the Early Middle Ages (3). (HU). May not be repeated for credit.

MEMS 314 / RCHUMS 314. The Figure of Rome in Shakespeare and 16th-Century Painting (3). (HU). May not be repeated for credit.

MEMS 316 / HISTORY 316 / WOMENSTD 316. Women and Gender in Medieval Europe: 500-1500 One course in Women's Studies or History. (3). (SS). May not be repeated for credit.

MEMS 317 / HISTORY 317 / WOMENSTD 317. Women and Gender in Early Modern Europe, 1500-1800 At least one course in WOMENSTD or HISTORY. (3). (HU). May not be repeated for credit.

MEMS 323 / FRENCH 343 / HISTORY 323. French Enlightenment
(3). (HU). May not be repeated for credit.

MEMS 324 / POLISH 324. Polish Literature from the Middle Ages to 1795: God's Playground (3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in POLISH 524.

MEMS 325 / ASIAN 324 / HISTORY 325 / NEAREAST 375 / RELIGION 325. The History of Islam in South Asia
(4). (HU). (R\&E). May not be repeated for credit.

MEMS 333 / ITALIAN 333. Dante's Divine Comedy
A knowledge of Italian is not required. (3). (HU). May not be repeated for credit. Taught in English.
MEMS 344 / HISTART 344. Early Medieval Kingdoms and Cultures: European Art 400-1000
(3). (HU). May not be repeated for credit.

MEMS 345 / HISTART 345. Introduction to Medieval Architecture
(3). (HU). May not be repeated for credit.

MEMS 348 / HISTART 348. The Medieval Book
(3). (HU). May not be repeated for credit.

MEMS 350 / ENGLISH 350. Literature in English to 1660
(4; 3 in the half-term). May not be repeated for credit. F.
MEMS 355 / HISTART 355. The Miraculous and the Diabolical in Late Medieval and Early Modern Europe
(3). (HU). May not be repeated for credit.

MEMS 360. Special Topics in Medieval and Early Modern Studies
(3). May be elected twice for credit. May be elected more than once in the same term.

MEMS 366 / ENGLISH 366. Shakespeare's Contemporaries
(3-4; 3 in the half-term). May not be repeated for credit.
MEMS 367 / ENGLISH 367. Shakespeare's Principal Plays
(3-4; 3 in the half-term). (HU). May not be repeated for credit.
MEMS 375 / GERMAN 375 / SCAND 375. Celtic and Nordic Mythology
(3). (HU). May not be repeated for credit. Taught in English.

MEMS 391 / RUSSIAN 391. Art, Culture, and Literature in Old Russia
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 551.

MEMS 411. Special Topics
(1-3). May not be repeated for credit.

## MEMS 421 / RCHUMS 386. Medieval Drama

(4). May not be repeated for credit.

## MEMS 440 / LATIN 435. Postclassical Latin I

Two years of college Latin. (3; 2 in the half-term). May not be repeated for credit.

## MEMS 441 / LATIN 436. Postclassical Latin II

Two years of college Latin. (3; 2 in the half-term). May not be repeated for credit.
MEMS 465 / ENGLISH 465. Chaucer: The Canterbury Tales
(3). May not be repeated for credit.

MEMS 490. Directed Reading
Permission of instructor. (1-4). (INDEPENDENT). May be repeated for credit.

## Courses in LSA History of Art

History of Art (HISTART)
HISTART 100. Introduction to Art
(4). (HU). May not be repeated for credit.

HISTART 101. Great Monuments from the Stone Age to the Middle Ages
(4). (HU). May not be repeated for credit. F.

HISTART 102. Western Art from the End of the Middle Ages to the Present
(4). (HU). May not be repeated for credit. W.

HISTART 194. First Year Seminar
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit. May not be used to meet the prerequisite requirement for the History of Art major.

HISTART 205. Sacred Places
(3-4). (HU). May not be repeated for credit.
HISTART 208 / AAS 208. Introduction to African Art
(4). (HU). (R\&E). May not be repeated for credit.

HISTART 210. History of Photography
(4). (HU). May not be repeated for credit.

HISTART 211 / WOMENSTD 211. Gender and Popular Culture
(4). (HU). May not be repeated for credit.

HISTART 212 / ARCH 212. Understanding Architecture
(3). May not be repeated for credit. Not open to students enrolled in Architecture. W.

HISTART 213 / ARCH 213. Architecture in Modernity
(4). (HU). May not be repeated for credit.

HISTART 220 / CLARCH 220. Great Buildings of Ancient Greece and Rome
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTART 221 / CLARCH 221. Introduction to Greek Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTART 222 / CLARCH 222. Introduction to Roman Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTART 224 / AAS 224. African Visual Cultures: Akan/Kongo/Yoruba
(3). May not be repeated for credit.

HISTART 230 / AMCULT 230. Art and Life in 19th-Century America
(3). (HU). May not be repeated for credit.

HISTART 237 / AMCULT 237 / RCHUMS 237. On the Margins of the Art World - Self-Taught Artists in the U.S.
(3). (ID). May not be repeated for credit.

HISTART 240 / MEMS 240. The Visual Arts in Medieval Society
(3). (HU). May not be repeated for credit.

HISTART 243 / ASIAN 243. Introduction to South Asian Art
(3). (HU). May not be repeated for credit.

HISTART 244 / AMCULT 244. Art of the American Century (1893-1968)
(3). (HU). May not be repeated for credit.

HISTART 250 / MEMS 250. Italian Renaissance Art
(4). (HU). May not be repeated for credit.

HISTART 253. The Mediterranean: Art History
(HU). May not be repeated for credit.
HISTART 255. Visual Mythology
(3). (HU). May not be repeated for credit.

HISTART 260. European Painting and Sculpture of the Seventeenth Century
(3). (HU). May not be repeated for credit.

HISTART 271 / FRENCH 241. Origins of Modernism: Art and Culture in Nineteenth Century France (4). (HU). May not be repeated for credit. F.

HISTART 272 / RCHUMS 272. Modern Art: Avant-Garde to Contemporary
(4; 3 in the half-term). (HU). May not be repeated for credit.
HISTART 285 / NEAREAST 285. Visual Culture Islam
(4). (HU). May not be repeated for credit.

HISTART 290 / ANTHRCUL 209. Ethnicity and Art in Japan
(4). (HU). May not be repeated for credit.

HISTART 292 / ASIAN 292. Introduction to Japanese Art and Culture
(4). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in HISTART 495.

HISTART 299. Experiential Study
Consent of instructor required. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. This course is not intended for students who are pursuing research. Offered mandatory credit/no credit.

HISTART 301 / ENVIRON 301. Nature, Culture and Landscape
Junior/Senior/permission of instructor. (3). (HU). May not be repeated for credit. W.
HISTART 302 / ANTHRCUL 302 / WOMENSTD 302. Sex and Gender in Japan
(3). (SS). May not be repeated for credit.

HISTART 304 / ASIAN 304. The Art of Yoga
(3). (ID). May not be repeated for credit.

HISTART 305 / ASIAN 335. Himalayas: An Aesthetic Exploration
Undergraduate and graduate students seeking to enroll for this course should have completed at least one course on the arts/languages/religions of South/Central/East Asia. (3). (HU). May not be repeated for credit.

HISTART 334 / WOMENSTD 334. Women in the Visual Arts: Images and Image-Makers
One course in Women's Studies or History of Art. (3). (HU). May not be repeated for credit.
HISTART 338. Representing Fashion: Costume and Dress in the Visual Arts
(4). (HU). May not be repeated for credit.

HISTART 341. The Gothic Age
(3). (HU). May not be repeated for credit.

HISTART 342 / RCHUMS 344. Reason and Passion in the 18th Century
Sophomore standing. (3). (HU). May not be repeated for credit.
HISTART 344 / MEMS 344. Early Medieval Kingdoms and Cultures: European Art 400-1000 (3). (HU). May not be repeated for credit.

HISTART 345 / MEMS 345. Introduction to Medieval Architecture
(3). (HU). May not be repeated for credit.

HISTART 346 / RELIGION 346. The Moving Image in the Middle Ages
(3). (HU). May not be repeated for credit.

HISTART 348 / MEMS 348. The Medieval Book
(3). (HU). May not be repeated for credit.

HISTART 351. The Art and Poetry of Michelangelo
HISTART 102 or 251. (3). May not be repeated for credit.
HISTART 352. Art and Philosophy in the Renaissance Tradition
(3). (HU). May not be repeated for credit.

HISTART 354 / ANTHRCUL 354. Art, Science, and Technology
(4). (ID). May not be repeated for credit.

HISTART 355 / MEMS 355. The Miraculous and the Diabolical in Late Medieval and Early Modern Europe
(3). (HU). May not be repeated for credit.

HISTART 356. The Self in the Portrait
Sophomores or above. (3). (HU). May not be repeated for credit.
HISTART 362 / AAS 362. Expressive Cultures of the Black Atlantic: Vision and Time HISTART 208/AAS 208 and upperclass standing. (3). May not be repeated for credit.

HISTART 377. Perspectives in Recent Art
HISTART 102 or 272. (3). May not be repeated for credit.
HISTART 378. Sculptural Practices - Modern and Contemporary
HISTART 272 or at least one 100 or 200 level HISTART course. (3). May not be repeated for credit.
HISTART 380 / CLARCH 380. Minoan and Mycenaean Archaeology
Consent of instructor required. Upperclass standing, CLARCH/HISTART 221 and 222, and permission of instructor. (3). May not be repeated for credit.

HISTART 382 / ANTHRARC 381 / NEAREAST 338. Introduction to Egyptian Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit.

## HISTART 383. Modern Asian Art

At least one course in either History of Art or Asian Studies. (3). (HU). (R\&E). May not be repeated for credit.

HISTART 385 / ASIAN 393. Human Rights in China from Classical Times through the 18th Century: a Historical and Cultural Survey
(3). (HU). May not be repeated for credit.

HISTART 386. Painting and Poetry in China
(3). (HU). May not be repeated for credit.

HISTART 388. Norm and Storm: Rebellion in Art
(3). (HU). May not be repeated for credit.

HISTART 389 / CLARCH 389 / CLCIV 379. Pompeii
(3-4). (HU). May not be repeated for credit.
HISTART 392. Anime to Zen: Japanese Art through Contemporary Popular Culture
(4). (HU). May not be repeated for credit.

HISTART 393. Undergraduate Seminar
Previous course work in the History of Art. (3). May be elected five times for credit. May be elected more than once in the same term. $W$.

## HISTART 394. Special Topics

(3). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. $F$, W, Sp, Su.

HISTART 397. Interdisciplinary Topics in History of Art
(3). (ID). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

HISTART 399. Independent Study
Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.
HISTART 406 / AAS 407. Looking at African Things
HISTART 208/AAS 208. (3). May not be repeated for credit. Rackham credit requires additional work.

HISTART 408 / AAS 480. Visual Culture as History in Africa
AAS 200 (CAAS 200). (3). May not be repeated for credit.

## HISTART 424 / CLARCH 424. Archaeology of the Roman Provinces

Upperclass standing, and CLARCH/HISTART 221 or 222. (3). May not be repeated for credit.

## HISTART 430 / CLARCH 420. Greece before History: The Art and Archaeology of Greek Lands ca 3500 to 700 BCE

(3). May not be repeated for credit.

HISTART 431 / AMCULT 433. Made in Detroit: A History of Art and Culture in the Motor City Upperclass standing; prior coursework in Art History, U.S. History, American Culture, or Urban studies, and permission of instructor. (3). May not be repeated for credit.

HISTART 433 / CLARCH 433. Greek Sculpture
Upperclass standing, some preparation in Classical Civilization, Classical Archaeology or History of Art. (3; 2 in the half-term). May not be repeated for credit. Rackham credit requires additional work.

HISTART 435 / CLARCH 435. The Art and Archaeology of Asia Minor
Upperclass standing. (3). May not be repeated for credit.
HISTART 439 / CLARCH 439. Greek Vase Painting
Upperclass standing. (3; 2 in the half-term). May not be repeated for credit.
HISTART 440 / CLARCH 440. Cities and Sanctuaries of Classical Greece
Upperclass standing, and a course in archaeology. (3; 2 in the half-term). May not be repeated for credit.

## HISTART 460. Renaissance Architecture

HISTART 101 or 102 or permission of instructor. (3). May not be repeated for credit. Rackham credit requires additional work.

HISTART 463. Art and Visual Culture in the Dutch Golden Age
(3). May not be repeated for credit.

HISTART 466 / ASIAN 465. Sacred Image/Sacred Place in Japanese Art
(3). May not be repeated for credit. Rackham credit requires additional work.

HISTART 469 / ASIAN 469. Modern Chinese Visual Culture
ASIAN 261. (3). May not be repeated for credit.

## HISTART 474. Topics in Modern and Contemporary Architecture

Any 100- or 200-level course in art history or architecture. (3). May be elected three times for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## HISTART 480. Disney's Lands: Consuming Wonders in America

Consent of instructor required. (3). May not be repeated for credit.
HISTART 481 / CLARCH 481. Art of Ancient Iran
Upperclass standing and HISTART 101 or 222. (3). May not be repeated for credit. Rackham credit requires additional work.

## HISTART 489. Special Topics in Art and Culture

(1-3). May be elected three times for credit. May be elected more than once in the same term.
HISTART 490. Working with Objects: Islamic Textiles, Metalwork, Ceramics, Glass, and Coins HISTART 285. (3). May not be repeated for credit. Rackham credit requires additional work.

HISTART 494. Encounters with Islamic Art: Studying, Collecting, and Reviving (3). May not be repeated for credit.

HISTART 495 / ASIAN 494. Ocean of Stories: Telling Tales in the Indian Subcontinent (3). May not be repeated for credit. Rackham credit requires additional work.

## HISTART 497. Upper-Level Seminar

Previous coursework in the History of Art. (3). May be elected three times for credit. May be elected more than once in the same term.

## HISTART 498. Honors Colloquium

Consent of instructor required. HISTART 393. (3). May not be repeated for credit.

## HISTART 499. Honors Thesis

HISTART 498. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## HISTART 534 / CLARCH 534. Ancient Painting

Upperclass standing, HISTART 101 and either HISTART/CLARCH 221 or 222. (3). May not be repeated for credit. Rackham credit requires additional work.

## HISTART 536 / CLARCH 536. Hellenistic and Roman Sculpture

HISTART 101; one of CLARCH 221 or 222 or HISTART 221 or 222; and Upperclass standing. (3). May not be repeated for credit. Rackham credit requires additional work.

## Museums (MUSEUMS)

## MUSEUMS 301. Museums and Society

Sophomore standing or above. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

## MUSEUMS 401. Contemporary Issues in Museums

MUSEUMS 301 or MSP 601. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## MUSEUMS 409. Practicum in Museums

Declared academic minor in Museum Studies. (Prerequisites enforced at registration.) (3).
(EXPERIENTIAL). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## MUSEUMS 498. Special Topics in Museum Studies

MUSEUMS 301 or MSP 601. (1-3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## MUSEUMS 499. Independent Study in Museum Studies

Consent of department required. MUSEUMS 301 or MSP 601 . (1-4). (INDEPENDENT). May be repeated

169 / College of Literature, Science, and the Arts
for a maximum of 4 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## Courses in LSA Honors

## Honors Program (HONORS)

HONORS 135. Ideas in Honors
First-year standing in the Honors Program. (1). May be elected twice for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

HONORS 199. Colloquium
(4). May not be repeated for credit.

HONORS 230. Honors Core in Social Science
Consent of department required. (4). (SS). May be elected twice for credit. May be elected more than once in the same term.

## HONORS 231. Honors Core in Humanities

Consent of department required. (4). (HU). May be elected twice for credit. May be elected more than once in the same term.

## HONORS 232. Honors Core in Natural Science

Consent of department required. (4). (NS). (BS). May be elected twice for credit. May be elected more than once in the same term.

## HONORS 240. Honors Core Writing in Social Science

Consent of department required. (4). (SS). (FYWR). May be elected twice for credit. May be elected more than once in the same term.

## HONORS 241. Honors Core Writing in Humanities

Consent of department required. (4). (HU). (FYWR). May be elected twice for credit. May be elected more than once in the same term.

## HONORS 242. Honors Core Writing in Natural Science

Consent of department required. (4). (NS). (FYWR). (BS). May be elected twice for credit.

## HONORS 250. Honors Social Sciences Seminar

Open to all Honors students. (3). (SS). May be elected twice for credit.

## HONORS 251. Honors Humanities Seminar

Open to Honors students. May be repeated for credit with permission of department. (3). (HU). May be elected twice for credit. May be elected more than once in the same term.

## HONORS 252. Honors Natural Sciences Seminar

Open to Honors students. (3). (NS). (BS). May be elected twice for credit.

## HONORS 254 / GERMAN 243. Faust

(3; 2 in the half-term). (HU). May not be repeated for credit.

## HONORS 290. Honors Introduction to Research

Consent of instructor required. Junior or Senior honors program. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. F, W, Sp, SS, Su.

## HONORS 291. Honors Introduction to Scientific Research

Consent of instructor required. Open to Honors students. Permission of instructor. (1-4).
(INDEPENDENT). May be repeated for a maximum of 8 credits. $F, W, S p, S S, S u$.
HONORS 292. Honors Introduction to Scientific Research
Consent of instructor required. Permission of the Honors Program. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.

HONORS 309 / GERMAN 309 / JAZZ 309 / RCHUMS 307. Imagination
(3). (HU). May not be repeated for credit.

HONORS 352. Honors Introduction to Research in the Natural Sciences
(3). (NS). (BS). May not be repeated for credit.

HONORS 354 / AAS 354 / RCHUMS 354 / WOMENSTD 354. Race and Identity in Music (3). (HU). (R\&E). May not be repeated for credit.

## HONORS 365 / PHYSICS 365 / SI 365. Cyberscience: Computational Science and the Rise of the Fourth Paradigm

Computing language course (e.g., EECS 183, 280, ENGR 101), Introductory statistics (e.g., Stats 250). (3). (NS). (BS). (QR/2). May not be repeated for credit.

## HONORS 390. Junior Honors Research

Consent of instructor required. Permission of the Honors Director. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of HONORS 490, the final grade is posted for both term's elections. F, W, Sp/Su, Sp, Su.

HONORS 490. Senior Honors Research
Consent of instructor required. Open to upperclass Honors concentrators. Permission of instructor. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. F, W, Sp/Su, Sp, Su.

## HONORS 493. College Honors Seminar

Consent of instructor required. Permission of instructor or of the Honors Director. (1-4). May be repeated for a maximum of 8 credits. W.

## Courses in LSA Humanities Institute

Institute for the Humanities (INSTHUM)
INSTHUM 211. Second-Year Seminar in Interdisciplinary Studies
(1-3). (HU). May not be repeated for credit.
INSTHUM 212. Second-Year Seminar in Interdisciplinary Studies
(1-3). (SS). May not be repeated for credit.
INSTHUM 311. Topics in Interdisciplinary Studies
Consent of instructor required. Permission of instructor. (1-4). (HU). May not be repeated for credit.
INSTHUM 400. Internship in the Humanities
Consent of department required. Concentration/minor in the humanities, humanities related focus of an interdisciplinary nature or creative arts. (1-2). (EXPERIENTIAL). May not be repeated for credit.

INSTHUM 411. Topics in Interdisciplinary Studies
Advanced undergraduate standing. (1-4). May be repeated for credit.

## Courses in LSA II: International and Comparative Studies

International Studies (INTLSTD)
INTLSTD 101 / GEOG 145. Introduction to International Studies
(3). (SS). May not be repeated for credit.

INTLSTD 170. International Studies Special Topics
May be elected twice for credit. Offered mandatory credit/no credit.
INTLSTD 205 / HISTORY 101. What is History?
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.

## INTLSTD 270. International Studies Special Topics

Students with a declared major/minor in International Studies. (Prerequisites enforced at registration.) (1 -4). May be elected twice for credit.

INTLSTD 301. Topics in International Studies
CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) (3-4). May not be repeated for credit.
INTLSTD 370. International Studies: Special Topics
Consent of department required. (1-4). May be elected twice for credit. May be elected more than once in the same term.

## INTLSTD 386. Topics in International Security, Norms and Cooperation

CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3-4). May be elected twice for credit. May be elected more than once in the same term.

## INTLSTD 387. Topics in Global Environment and Health

CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3-4). May be elected twice for credit. May be elected more than once in the same term.

## INTLSTD 388. Topics in Political Economy and Development

CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3-4). May be elected twice for credit. May be elected more than once in the same term.

## INTLSTD 389. Topics in Comparative Culture and Identity

CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3 - 4). May be elected twice for credit. May be elected more than once in the same term.

## INTLSTD 391. Directed Studies

Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit.

## INTLSTD 401. International Studies Advanced Seminar

Junior standing or above. (Prerequisites enforced at registration.) (3-4). May be elected twice for credit.
INTLSTD 470. International Studies: Special Topics
Consent of department required. (1-4). May be elected twice for credit. May be elected more than once in the same term.

## INTLSTD 486. Advanced Topics in International Security, Norms and Cooperation

CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3-4). May be elected twice for credit.

INTLSTD 487. Advanced Topics in Global Environment and Health
CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3-4). May be elected twice for credit.

INTLSTD 488. Advanced Topics in Political Economy and Development
CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3-4). May be elected twice for credit.

INTLSTD 489. Advanced topics in Comparative Culture and Identity
CICS 101 or INTLSTD 101. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (3 - 4). May be elected twice for credit.

INTLSTD 491. Directed Studies
INTLSTD 101 and Permission of Instructor and the Director. (Prerequisites enforced at registration.) CICS 301 or INTLSTD 301. (2-4). (INDEPENDENT). May be elected twice for credit.

INTLSTD 498. Senior Honors Proseminar
International Studies Senior Honors Majors only. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## INTLSTD 499. Senior Honors Proseminar

International Studies Senior Honors majors who have completed CICS 498 or INTLSTD 498. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## Courses in LSA II: Japanese Studies

Japanese Studies (CJS)

## CJS 281. Study Abroad in Japan

Consent of instructor required. (1-3). (EXPERIENTIAL). May be elected twice for credit.
CJS 450. Minicourse in Japanese Studies
Upperclass standing. (1-2). May be repeated for a maximum of 4 credits. May be elected more than once in the same term. Taught in English. Rackham credit requires additional work.

## CJS 451. Topics in Japanese Studies

Junior/Senior or Graduate students. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## Courses in LSA II: Latin American and Caribbean Studies

Latin American and Caribbean Studies (LACS)
LACS 226 / AAS 236 / AMCULT 226 / HISTORY 226 / LATINOAM 226. The Latin Tinge: Latin Music in Social Context in Latin America and the U.S.
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
LACS 300 / HS 300. Spanish for Healthcare Professionals
May not be repeated for credit. (non-LSA credit).
LACS 321. Social Science Topics in LACS
(3-4). (SS). May be elected twice for credit.
LACS 349 / HISTORY 349. Revolutionary Movements in Modern Latin America
(4; 3 in the half-term). (ID). May not be repeated for credit.
LACS 355. Topics in Latin American and Caribbean Studies
(3). May be elected twice for credit. May be elected more than once in the same term.

## LACS 399. Thesis-Writers' Seminar

Consent of instructor required. (3). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

LACS 421 / AAS 421 / HISTORY 421 / RELIGION 421. Religions of the African Diaspora
(3). May not be repeated for credit. Rackham credit requires additional work.

## LACS 425. Field Study

Consent of instructor required. (1-4). (EXPERIENTIAL). (INDEPENDENT). May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## LACS 446 / LING 446. Comparative Linguistics

At least one course in Linguistics/language analysis. (3). May not be repeated for credit. Rackham credit requires additional work.

LACS 455. Topics in Latin American Studies
Consent of instructor required. (3). May be repeated for a maximum of 6 credits.

## LACS 461. Elementary Nahuatl I

Consent of instructor required. (4). May not be repeated for credit.
LACS 462. Elementary NahuatI II
Consent of instructor required. (4). May not be repeated for credit.

## LACS 463. Intermediate Nahuat I

Consent of instructor required. (4). May not be repeated for credit.

## LACS 464. Intermediate NahuatI II

Consent of instructor required. (4). (Lang Req). May not be repeated for credit.

## LACS 465. Advanced Nahuatl I

Consent of instructor required. (4). May not be repeated for credit.

## LACS 466. Advanced Nahuatl II

Consent of instructor required. (4). May not be repeated for credit.

## LACS 471. Elementary Quechua, I

Permission of instructor. (4). May not be repeated for credit.

## LACS 472. Elementary Quechua, II

Consent of instructor required. (4). May not be repeated for credit.
LACS 473. Intermediate Quechua, I
Permission of instructor. (4). May not be repeated for credit.

## LACS 474. Intermediate Quechua, II

Consent of instructor required. (4). (Lang Req). May not be repeated for credit.

## LACS 475. Advanced Quechua, I

Permission of instructor. (4). May not be repeated for credit.

## LACS 476. Advanced Quechua, II

Consent of instructor required. (4). May not be repeated for credit.

## LACS 483 / AAS 473 / HISTORY 473. Brazil: History and Culture

(3). May not be repeated for credit. Rackham credit requires additional work.

## LACS 490. Topics in Latin American and Caribbean Studies Mini-course

Permission of Instructor. (1-2). May be repeated for a maximum of 4 credits. May be elected more than once in the same term.

## LACS 499. Reading and Research in Latin American and Caribbean Studies

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## Courses in LSA II: Middle Eastern and North African Studies

Middle Eastern and North African Studies (MENAS)
MENAS 243 / HISTORY 243. The Dawn of Islamic History
(4; 3 in the half-term). (HU). May not be repeated for credit.
MENAS 244 / HISTORY 244 / JUDAIC 244 / NEAREAST 284. The History of the Arab-Israeli Conflict (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

MENAS 334 / AAPTIS 364 / HISTORY 334. Selected Topics in Near and Middle Eastern Studies (1-3). May not be repeated for credit.

MENAS 340 / ASIAN 340 / HISTORY 340 / NEAREAST 340 / REEES 340. From Genghis Khan to the Taliban: Modern Central Asia
(4; 3-4 in the half-term). (SS). (R\&E). May not be repeated for credit.
MENAS 398. MENAS Internship
Consent of instructor required. AAPTIS 101 or higher for Arabic or AAPTIS 151 or higher for Turkish. (13). (EXPERIENTIAL). May not be repeated for credit.

MENAS 461 / EDUC 461. Web Based Mentorship: Earth Odysseys
(3). May be repeated for a maximum of 6 credits.

MENAS 462 / EDUC 462. Web Based Mentorship: Place Out of Time
Consent of instructor required. (3). (EXPERIENTIAL). May be repeated for credit. May be elected more than once in the same term.

MENAS 463 / EDUC 463. Web Based Mentorship: Arab-Israeli Conflict Simulation
(3). May be repeated for a maximum of 6 credits.

MENAS 493 / NEAREAST 483. Comparative Perspectives of the Middle East and North Africa
(1). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## MENAS 495. Senior Honors Thesis

Consent of instructor required. Open only to Honors concentrators with senior standing. (3-4). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of MENAS 496, the final grade is posted for both term's elections.

MENAS 496. Senior Honors Thesis
Consent of instructor required. MENAS 495; Open only to Honors concentrators with senior standing. (34). (INDEPENDENT). May not be repeated for credit.

MENAS 591. Interdisciplinary Middle East Topics Seminar
Upperclass standing; concentration in MENAS, NES or other fields with main interest in Middle Eastern Studies. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## Courses in LSA II: Russian, East European, and Eurasian Studies

Russian, East European, and Eurasian Studies (REEES)
REEES 214 / POLISH 214. Rock Poetry and Political Protest in Poland
(3). (HU). May not be repeated for credit.

REEES 301. Directed Reading
Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.
REEES 340 / ASIAN 340 / HISTORY 340 / MENAS 340 / NEAREAST 340. From Genghis Khan to the Taliban: Modern Central Asia
(4;3-4 in the half-term). (SS). (R\&E). May not be repeated for credit.
REEES 350 / BCS 350 / JUDAIC 350. Legacy of the Holocaust in Yugoslav Culture: How and Why We Need to Narrate the Holocaust
(3). (HU). (R\&E). May not be repeated for credit.

REEES 395 / HISTORY 332 / POLSCI 395 / SLAVIC 395 / SOC 392. Russia and the Soviet Union: Reform, Revolution, and the Socialist Experiment
(4; 3 in the half-term). (SS). May not be repeated for credit.
REEES 396 / POLSCI 396 / SLAVIC 396 / SOC 393. East Central Europe: Nationalism, Socialism, Democracy
(3-4). (SS). May not be repeated for credit.
REEES 397 / ANTHRCUL 317. Communism and Capitalism in Eastern Europe
(4). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in REEES 396 or SLAVIC 396 or POLSCI 396 or HISTORY 333 or SOC 393.

REEES 401. Senior Seminar in Russian, East European, and Eurasian Studies
Permission of instructor. (3). May be repeated for a maximum of 6 credits.
REEES 402. Honors Workshop, Junior
Consent of instructor required. Honors student and junior standing. (2). May not be repeated for credit.
REEES 403. Honors Colloquium, Senior
Consent of instructor required. REEES 402 or a thesis prospectus accepted (prior to start of fall term of senior year) by REEES Honors advisor and an individual thesis advisor. (1-6). May be repeated for a maximum of 6 credits.

REEES 405. Topics in Russian, East European, and Eurasian Studies
(1-4). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.
REEES 410. Polish Culture
(1). May be repeated for a maximum of 2 credits. May be elected more than once in the same term.

REEES 490 / SOC 490 / WOMENSTD 492. Women and Islam: A Sociological Perspective
(3). May not be repeated for credit.

## Courses in LSA II: SE Asian Studies

Southeast Asian Studies (SEAS)
SEAS 215 / UC 215. Contemporary Social Issues in Southeast Asia
(3). (SS). May not be repeated for credit. W.

## SEAS 354 / POLSCI 354. Governments and Politics of Southeast Asia

One course in Political Science or upperclass standing. (3). (SS). May not be repeated for credit.

## SEAS 450. Minicourse in Southeast Asian Studies

Junior, Senior, or graduate students. (1-2). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## SEAS 455. Topics in Southeast Asian Studies

Junior, Senior, graduate students. (3). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## Courses in LSA Judaic Studies

Judaic Studies (JUDAIC)
JUDAIC 101 / GERMAN 127 / YIDDISH 101. Elementary Yiddish I
(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 431 or YIDDISH 431. Graduate students elect JUDAIC 431 or YIDDISH 431. F.

JUDAIC 102 / GERMAN 128 / YIDDISH 102. Elementary Yiddish II
JUDAIC/YIDDISH 101. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 432 or YIDDISH 432. Graduate students elect JUDAIC 432 or YIDDISH 432. W.

JUDAIC 150. First Year Seminar in Judaic Studies
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

JUDAIC 201 / GERMAN 227 / YIDDISH 201. Intermediate Yiddish I
JUDAIC/YIDDISH 102. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 531 or YIDDISH 531. Graduate students elect JUDAIC 531 or YIDDISH 531. F.

JUDAIC 202 / GERMAN 228 / YIDDISH 202. Intermediate Yiddish II
JUDAIC/YIDDISH 201. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 532 or YIDDISH 532. Graduate students elect JUDAIC 532 or YIDDISH 532. W.

JUDAIC 205 / NEAREAST 276. What is Judaism?
(4). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 505 or HJCS 576.

## JUDAIC 210 / HISTORY 258. Sources of Jewish History

(4). (HU). May not be repeated for credit.

JUDAIC 217. Topics in the Hebrew Bible
(3). (HU). May be elected twice for credit.

JUDAIC 218. Humanities Topics in Judaism
(1-4). (HU). May be elected eight times for credit. May be elected more than once in the same term.
JUDAIC 244 / HISTORY 244 / MENAS 244 / NEAREAST 284. The History of the Arab-Israeli Conflict (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

JUDAIC 245 / AMCULT 245. Jews and Other Others
Not available to students who have completed AMCULT 211 or JUDAIC 218 when taught with the topic "Jews and Other Others" (Topic \#1). (Prerequisites enforced at registration.) (3-4). (HU). May not be repeated for credit.

JUDAIC 250 / NEAREAST 280 / SAC 250. Jewish Film: Race, Ethnicity, and Nationality
(4). (HU). (R\&E). May not be repeated for credit.

JUDAIC 253. The Mediterranean: Jewish Studies
(HU). May not be repeated for credit.
JUDAIC 255 / NEAREAST 279. Tel Aviv and Jerusalem in Israeli Culture
(3). (HU). May not be repeated for credit.

JUDAIC 256 / NEAREAST 256. Israeli Literature and Culture
(3). (HU). May not be repeated for credit.

JUDAIC 257 / CLCIV 257 / HISTORY 257. Ancient Law
(3). (HU). May not be repeated for credit.

JUDAIC 258 / ENGLISH 258 / RELIGION 258. The Bible as Literature
(3). (HU). May not be repeated for credit.

JUDAIC 259. The Book of Genesis
(3). (HU). May not be repeated for credit.

JUDAIC 260 / HISTORY 269 / RELIGION 260. Introduction to the Talmud and the Rabbis
(3). (HU). May not be repeated for credit.

JUDAIC 271 / SLAVIC 270. Contact and Conflict: Jewish Experience in Eastern Europe through Art, Film and Literature
(3). (R\&E). May not be repeated for credit.

JUDAIC 277 / NEAREAST 207 / RELIGION 277. The Land of Israel/Palestine through the Ages (4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit. Taught in English.

JUDAIC 281 / NEAREAST 281 / SLAVIC 281. Jews in the Modern World: Texts, Images, Ideas (4). (HU). (R\&E). May not be repeated for credit.

JUDAIC 290 / HISTORY 290 / NEAREAST 287. Jews and Muslims
(3). (HU). May not be repeated for credit.

JUDAIC 296 / NEAREAST 255 / RELIGION 296. Perspectives on the Holocaust
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
JUDAIC 301 / GERMAN 327 / YIDDISH 301. Advanced Yiddish I
JUDAIC 102 or YIDDISH 202. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 631 or YIDDISH 631. Graduate students elect JUDAIC 631 or YIDDISH 631. F.

JUDAIC 302 / GERMAN 328 / YIDDISH 302. Advanced Yiddish II
JUDAIC/YIDDISH 301. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 632 or YIDDISH 632. Graduate students elect JUDAIC 632 or YIDDISH 632. W.

JUDAIC 316. Themes in Jewish Literature
(1-4). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

JUDAIC 317. Topics in Judaic Studies
(1-4). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.
JUDAIC 318. Humanities Topics in Judaism
(1-4). (HU). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

JUDAIC 319. Judaic Studies Abroad
Consent of department required. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 16 credits.
JUDAIC 320 / AMCULT 320 / NEAREAST 380. The Jewish Graphic Novel
(3). (HU). May not be repeated for credit.

JUDAIC 332 / YIDDISH 332. The Yiddish Classics and Modernity
(3). (HU). May not be repeated for credit.

JUDAIC 350 / BCS 350 / REEES 350. Legacy of the Holocaust in Yugoslav Culture: How and Why We Need to Narrate the Holocaust
(3). (HU). (R\&E). May not be repeated for credit.

JUDAIC 351 / DUTCH 351. Anne Frank in Context
(3). (HU). (R\&E). May not be repeated for credit.

JUDAIC 360 / NEAREAST 386. A Global History of the Jews of Spain
JUDAIC 205. (3). (HU). May not be repeated for credit.
JUDAIC 376 / WOMENSTD 376. Women and the Bible
(3). (HU). May not be repeated for credit.

JUDAIC 380 / CLCIV 380 / HISTORY 381 / RELIGION 382. Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest
(3). (ID). May not be repeated for credit. No credit granted for students who have taken both ACABS 322 and ACABS 326.

JUDAIC 386 / GERMAN 391 / HISTORY 386. The Holocaust
(4). (SS). (R\&E). May not be repeated for credit.

JUDAIC 387 / AMCULT 387 / HISTORY 387. History of American Jews
(4; 3 in the half-term). May not be repeated for credit.
JUDAIC 388 / HISTORY 384. Antisemitism and Philosemitism: Jews in Myth and Thought
(3). (HU). (R\&E). May not be repeated for credit.

JUDAIC 389 / ENGLISH 383. Jewish Literature
(3). (HU). May not be repeated for credit.

JUDAIC 416. Topics in Jewish Literature
(1-4). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

JUDAIC 417. Topics in Judaic Studies
(3). May be elected three times for credit. May be elected more than once in the same term. Rackham credit requires additional work.

JUDAIC 437 / AMCULT 437. Yiddish in New York: The First 150 Years
(3). May not be repeated for credit. Rackham credit requires additional work.

JUDAIC 451 / POLSCI 350. The Politics and Culture of Modern East European Jewry
A course in East European and/or Jewish history, and Comparative Politics is recommended. (3). May not be repeated for credit. Sp/Su in Poland.

JUDAIC 467 / NEAREAST 476 / RELIGION 471. Seminar: Topics in the Study of Judaism
(3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

JUDAIC 468 / NEAREAST 456 / RELIGION 469. Jewish Mysticism
(3). May not be repeated for credit. Taught in English.

## JUDAIC 470 / NEAREAST 442. Reading the Rabbis

NESLANG 202 or HEBREW 202. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in NEAREAST 242 (ACABS 270/HJCS 270/JUDAIC 270).

JUDAIC 478 / NEAREAST 455 / RELIGION 478. Modern Jewish Thought
(3). May not be repeated for credit. Taught in English.

JUDAIC 495. Independent Studies
Consent of instructor required. (1-3). (INDEPENDENT). May not be repeated for credit. F.
JUDAIC 496. Independent Studies
Consent of instructor required. (1-3). (INDEPENDENT). May not be repeated for credit.

## JUDAIC 497. Senior Thesis

Consent of instructor required. (3). (INDEPENDENT). May not be repeated for credit. Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of JUDAIC 498, the final grade is posted for both term's elections. F.

JUDAIC 498. Senior Thesis
Consent of instructor required. (3). (INDEPENDENT). May not be repeated for credit.
Yiddish (YIDDISH)
YIDDISH 101 / GERMAN 127 / JUDAIC 101. Elementary Yiddish I
(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 431 or YIDDISH 431. Graduate students elect JUDAIC 431 or YIDDISH 431. F.

YIDDISH 102 / GERMAN 128 / JUDAIC 102. Elementary Yiddish II
JUDAIC/YIDDISH 101. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 432 or YIDDISH 432. Graduate students elect JUDAIC 432 or YIDDISH 432. W.

YIDDISH 201 / GERMAN 227 / JUDAIC 201. Intermediate Yiddish I
JUDAIC/YIDDISH 102. (4). May not be repeated for credit. No credit granted to those who have
completed or are enrolled in JUDAIC 531 or YIDDISH 531. Graduate students elect JUDAIC 531 or YIDDISH 531. F.

YIDDISH 202 / GERMAN 228 / JUDAIC 202. Intermediate Yiddish II
JUDAIC/YIDDISH 201. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 532 or YIDDISH 532. Graduate students elect JUDAIC 532 or YIDDISH 532. W.

## YIDDISH 301 / GERMAN 327 / JUDAIC 301. Advanced Yiddish I

JUDAIC 102 or YIDDISH 202. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 631 or YIDDISH 631. Graduate students elect JUDAIC 631 or YIDDISH 631. F.

YIDDISH 302 / GERMAN 328 / JUDAIC 302. Advanced Yiddish II
JUDAIC/YIDDISH 301. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 632 or YIDDISH 632. Graduate students elect JUDAIC 632 or YIDDISH 632. W.

YIDDISH 332 / JUDAIC 332. The Yiddish Classics and Modernity
(3). (HU). May not be repeated for credit.

## Courses in LSA Linguistics

Cognitive Science (COGSCI)
COGSCI 200. Introduction to Cognitive Science
PSYCH 112, or one of LING 111, LING 209, or LING 210. (4). (ID). (BS). May not be repeated for credit.

- Linguistics (LING)


## LING 102. First Year Seminar (Humanities)

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

## LING 103. First Year Seminar (Social Science)

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

LING 106. Start Talking: Introduction to First Language Acquisition
(3). (SS). May not be repeated for credit.

LING 111. Introduction to Language
(3). (SS). May not be repeated for credit.

LING 112. Languages of the World
(3). (SS). May not be repeated for credit.

## LING 114. A World of Words

(3). (HU). May not be repeated for credit.

## LING 115. Language in a Multicultural World

(3). (SS). May not be repeated for credit.

## LING 209 / PSYCH 242. Language and Human Mind

Not available to students who have completed LING 103 (courseID 020035), Topic: Language and Mind,(Topic \#6). (Prerequisites enforced at registration.) (4; 3 in the half-term). (ID). May not be repeated for credit. Does not count toward the requirements for the Psychology major.

LING 210. Introduction to Linguistic Analysis
(4). (SS). May not be repeated for credit.

LING 230. Honors Core in Linguistics
Consent of department required. (4). (SS). May be elected twice for credit. May be elected more than once in the same term.

LING 240. Honors Core Writing in Linguistics
Consent of department required. (4). (SS). (FYWR). May be elected twice for credit. May be elected more than once in the same term.

## LING 272 / ANTHRCUL 272. Language in Society

Primarily for first- and second-year students. (4). (SS). May not be repeated for credit.

## LING 313. Sound Patterns

LING 111, 209, 210, or 212. (3; 2 in the half-term). (SS). May not be repeated for credit.
LING 315. Introduction to Syntax
LING 111, 209, 210, or 212. (3; 2 in the half-term). May not be repeated for credit.
LING 316. Aspects of Meaning
LING 111, 209, 210, or 212. (3). May not be repeated for credit.
LING 317. Language and History
LING 111 or 210. (3; 2 in the half-term). (HU). May not be repeated for credit.
LING 340. Introduction to Sociolinguistics
LING 111 or 210. (3). May not be repeated for credit.

## LING 341. The Mathematics of Language

One linguistics course. (3). May not be repeated for credit.

## LING 342. Perspectives on Bilingualism

LING 111, 210, or 272. (3). May not be repeated for credit.
LING 347 / PSYCH 349. Talking Minds
At least one of: LING 111 or 210, or PSYCH 111, 112, 114, or 115. (3). (BS). May not be repeated for credit.

LING 351 / ELI 351 / PSYCH 344. Second Language Acquisition
LING 111 or 210. (3). (BS). May not be repeated for credit.

## LING 352 / PSYCH 352. Development of Language and Thought

PSYCH 250. (3). (SS). May not be repeated for credit.
LING 362 / ANTHRCUL 375. Talking and Telling
One course in linguistics, anthropology, or a related field. (3). May not be repeated for credit.
LING 367 / ASIAN 367. Languages of Asia
(3). (HU). May not be repeated for credit.

LING 368 / ASIAN 368. How Different is Chinese?
(3). (HU). May not be repeated for credit.

LING 370 / ANTHRCUL 370. Language and Discrimination: Language as Social Statement (3). (SS). (R\&E). May not be repeated for credit.

LING 374 / ANTHRCUL 374. Language and Culture
Sophomore standing. (4). (HU). May not be repeated for credit.
LING 375. Language in the Mass Media: Linguistics and Language Variation in the Public Sphere LING 111 or 210. (3). (ID). May not be repeated for credit.

## LING 385. Experiential Practice

Permission of instructor. (1-6). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. Offered mandatory credit/no credit.

LING 390 / EDUC 390 / ELI 390 / RCSSCI 390. Community-Engaged Learning in ESL Teaching Contexts (3). (EXPERIENTIAL). May be elected three times for credit.

## LING 391 / AMCULT 361 / EDUC 395 / ELI 395 / LATINOAM 361 / RCSSCI 395. Principles and Practices of Teaching ESL in Migrant Communities

(3). (EXPERIENTIAL). May be elected three times for credit.

LING 394. Topics in Linguistics
LING 111 or 210. (3-4). May be elected twice for credit. May be elected more than once in the same term.

LING 395. Individual Research
Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits. F, $W, S p, S u$.

LING 396 / AMCULT 362 / EDUC 396 / ELI 396 / LATINOAM 362 / RCSSCI 396. Migrant Community Outreach and ESL Teaching Practicum
ELI 395; completed with a minimum grade of C or better. (Prerequisites enforced at registration.) (2-3). (EXPERIENTIAL). May be elected three times for credit.

LING 408 / ENGLISH 408. Varieties of English
(3). May not be repeated for credit.

## LING 412. Speech Perception

LING 313. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## LING 413. Speech Science

LING 313. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## LING 418. Linguistic Typology

LING 313 and 315. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## LING 421. Morphology

LING 313. (Prerequisites enforced at registration.) LING 315 or LING 316. (3; 2 in the half-term). May not be repeated for credit.

LING 426 / PHIL 426. Philosophy and Linguistic Theory
One philosophy introduction, one logic introduction, or concentration in Linguistics. (3; 2 in the halfterm). May not be repeated for credit.

## LING 433 / ARABIC 507. Arabic Syntax and Semantics

ARABIC 202 (AAPTIS 202) or ARABIC 203 (AAPTIS 205) completed with a minimum grade of C- or better. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

LING 440. Language Learnability
LING 315. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

LING 441. Introduction to Computational Linguistics
EECS 183 or the equivalent. Students planning to take LING 315 and 316 (e.g., Linguistics majors) should take them before taking LING 441. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## LING 445. Cognitive Linguistics

Background in linguistics, philosophy, or psychology of language. (3). May not be repeated for credit.

## LING 446 / LACS 446. Comparative Linguistics

At least one course in Linguistics/language analysis. (3). May not be repeated for credit. Rackham credit requires additional work.

## LING 447 / PSYCH 445. Psychology of Language

PSYCH 240. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## LING 449 / AAS 439. Creole Languages and Caribbean Identities

AAS 202. (3; 2 in the half-term). May not be repeated for credit.

## LING 461 / AMCULT 461 / ANTHRCUL 461 / NATIVEAM 461. Language, Culture, and Society in Native North America

(3). May not be repeated for credit.

LING 471 / ANTHRCUL 471. Face-to-Face Interaction
(3). May not be repeated for credit.

## LING 473 / ANTHRCUL 473. Ethnopoetics: Cross-Cultural Approaches to Verbal Art

Two courses in anthropology, linguistics, or literature or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.

LING 492. Topics in Linguistics
(3; 2 in the half-term). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

LING 493. Undergraduate Reading
Consent of instructor required. Permission of the concentration advisor. (1-3). (INDEPENDENT). May not be repeated for credit.

## LING 494. Undergraduate Reading

Consent of instructor required. Permission of the concentration advisor. (1-3). (INDEPENDENT). May not be repeated for credit.

## LING 495. Senior Honors Reading Course

Consent of instructor required. Permission of concentration advisor. (1-3). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term (LING 496), the final grade is posted for both term's elections. $F, W, S p / S u, S p, S u$.

## LING 496. Senior Honors Reading Course

Consent of instructor required. LING 495. (1-3). (INDEPENDENT). May not be repeated for credit. F, W, Sp/Su, Su.

## LING 497. Capstone Seminar

LING 313, 315 and 316. (Prerequisites enforced at registration.) (3). May be elected twice for credit. May be elected more than once in the same term.

LING 512. Phonetics
LING 313. (4). May not be repeated for credit. F.
LING 513. Phonology
LING 313. (3; 2 in the half-term). May not be repeated for credit. W.
LING 515. Generative Syntax
LING 315 or Permission of Instructor. (3; 2 in the half-term). May not be repeated for credit. F.
LING 516. Semantics and Pragmatics
Permission of instructor. (3; 2 in the half-term). May not be repeated for credit.
LING 517 / ANTHRCUL 519 / GERMAN 517. Principles and Methods of Historical Linguistics
Graduate standing, or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.
LING 519. Discourse Analysis
Permission of instructor. (3; 2 in the half-term). May not be repeated for credit.
LING 522. Language Contact
At least one introductory course in Linguistics. (3). May not be repeated for credit.

## LING 541 / EECS 595 / SI 561. Natural Language Processing

Senior standing. (3). (BS). May not be repeated for credit. F.

## LING 542 / ANTHRCUL 572. Introduction to Sociolinguistics

LING 411 or graduate standing. (3; 2 in the half-term). May not be repeated for credit.

## Courses in LSA Lloyd Hall Scholars

Lloyd Hall Scholars Program (LHSP)
LHSP 125. College Writing
(4). (FYWR). May not be repeated for credit. A maximum of 20 Lloyd Hall Scholars Program credits may be counted toward a degree.

## LHSP 130. Writing and the Arts I

(3). (CE). May not be repeated for credit. A maximum of 20 Lloyd Hall Scholars Program credits may be counted toward a degree.

## LHSP 140. Arts and Humanities

(3). (CE). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. A maximum of 20 Lloyd Hall Scholars Program credits may be counted toward a degree.

## LHSP 228. What is Writing?

Completion of the First-Year Writing Requirement. (3). (HU). May not be repeated for credit. A maximum of 20 Lloyd Hall Scholars Program credits may be counted toward a degree.

## LHSP 230. Writing and Arts II

Completion of the First-Year Writing Requirement. (Prerequisites enforced at registration.) Experience in writing or the arts. Non-LSA students welcome and may request permission to enroll. (3). (CE). May be elected twice for credit. A maximum of 20 Lloyd Hall Scholars Program credits may be counted toward a degree.

## LHSP 299. Independent Study

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. A maximum of 20 Lloyd Hall Scholars Program credits may be counted toward a degree.

## Courses in LSA Mathematics

Mathematics (MATH)
MATH 100 / STATS 100. Introduction to Statistics, Probability and Mathematical Modeling
Consent of department required. 3-4 years of high school mathematics, including trigonometry. (4; 3 in the half-term). (MSA). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SOC 210, STATS 280, 250, 400, 405 or 412, IOE 265, or ECON 404 or 405.

## MATH 103 / CSP 103. Intermediate Algebra

Only open to designated summer half-term Bridge students. (2 in the half-term). May not be repeated for credit. Su.

## MATH 104 / CSP 104. Mathematical Thinking

Only open to designated Summer half-term Bridge and M Academy students. (2 in the half-term). (QR/2). May not be repeated for credit.

## MATH 105. Data, Functions, and Graphs

(4). (MSA). (QR/1). May not be repeated for credit. No credit granted to those who have completed any Mathematics course numbered 110 or higher. A maximum of four credits may be earned in MATH 105 and 110.

## MATH 110. Pre-Calculus (Self-Study)

MATH 110 is by recommendation or permission of MATH 115 instructor. (2). May not be repeated for credit. No credit granted to those who already have 4 credits for pre-calculus mathematics courses. A maximum of four credits may be earned in MATH 105 and 110.

## MATH 115. Calculus I

Four years of high school mathematics. (4). (MSA). (BS). (QR/1). May not be repeated for credit. No credit for students having completed Math 116, 185, 215, or 216.

## MATH 116. Calculus II

MATH 115. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit is granted for only one course among MATH 116 and 156. No credit for students having completed or enrolled in Math 156, 176, 186, $215,216,255$, or 256.

## MATH 120. Exam Calculus Credit I

(2-4). (BS). May not be repeated for credit. No credit to students electing MATH 105 or MATH 115.

## MATH 121. Exam Calculus Credit II

(2-4). (BS). May not be repeated for credit. No credit to students electing MATH 105, 115, 116, 156, 175, 185.

## MATH 145. Houghton Scholars Calculus Workshop I

Consent of department required. Concurrent enrollment in MATH 115. (2). May not be repeated for credit. Offered mandatory credit/no credit.

## MATH 146. Houghton Scholars Calculus Workshop II

Credit in MATH 145. (Prerequisites enforced at registration.) Concurrent enrollment in MATH 116. (2). May not be repeated for credit. Offered mandatory credit/no credit.

## MATH 147. Introduction to Interest Theory

Three to four years high school mathematics. (3). (MSA). (BS). May not be repeated for credit. No credit granted to those who have completed a 200- (or higher) level mathematics course, except MATH 385, 485,489 , or 497.

## MATH 156. Applied Honors Calculus II

Score of 4 or 5 on the $A B$ or BC Advanced Placement calculus exam. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit is granted for either MATH 116 or 156, not both. F.

## MATH 175. An Introduction to Cryptology

Permission of department. (4). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed a 200-level or higher Mathematics course other than 385 or 489. F.

## MATH 176. Explorations in Calculus

Background in calculus is suggested, highly recommended for students who have taken Math 175. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit is granted for either MATH 176 or 186, not both.

## MATH 185. Honors Calculus I

Permission of the Honors advisor. (4). (MSA). (BS). (QR/1). May not be repeated for credit. F.

## MATH 186. Honors Calculus II

Permission of the Honors advisor. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit is granted for either MATH 176 or 186, not both. W.

## MATH 214. Applied Linear Algebra

MATH 116, 156, 176, 186, or 296. (4). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 217, 417, 419, or 420.

## MATH 215. Calculus III

MATH 116, 156, 176, 186, or 296. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit can be earned for only one of MATH 215, 255, or 285.

## MATH 216. Introduction to Differential Equations

Permission required after credit earned in MATH 256, 286, or 316. (Prerequisites enforced at registration.) MATH 116, 119, 156, 176, 186, or 296. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit can be earned for only one of MATH 216, 256, 286, or 316.

## MATH 217. Linear Algebra

MATH 215, 255, or 285. Most students take only one course from MATH 214, 217, 417, 419, and 420. (4). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 419 or 420. Only 2 credits granted to those who have completed MATH 214 or 417.

## MATH 285. Honors Calculus III

MATH 156, 176, or 186, or permission of the Honors advisor. (4). (MSA). (BS). (QR/1). May not be repeated for credit. Credit can be earned for only one of MATH 215, 255, or 285. F.

## MATH 286. Honors Differential Equations

Permission required after credit earned in MATH 216, 256, or 316. (Prerequisites enforced at registration.) MATH 285. (3). (MSA). (BS). (QR/1). May not be repeated for credit. Credit can be earned for only one of MATH 216, 256, 286, or 316. W.

## MATH 289. Problem Seminar

(1). (BS). May be repeated for credit.

## MATH 295. Honors Mathematics I

Prior knowledge of first year calculus and permission of the Honors advisor. (4). (MSA). (BS). (QR/1). May not be repeated for credit. F.

## MATH 296. Honors Mathematics II

MATH 295. (4). (BS). (QR/1). May not be repeated for credit. W.

## MATH 310. Elementary Topics: Choice and Chance

Sophomore standing and one previous university math class. (3). (BS). May not be repeated for credit.

## MATH 312. Applied Modern Algebra

MATH 217. (3). (BS). May not be repeated for credit. Only one credit granted to those who have completed MATH 412. W.

## MATH 316. Differential Equations

Permission required after credit earned in MATH 216, 256, or 286. (Prerequisites enforced at registration.) MATH 215, 255, or 285 and 217. (3). (BS). May not be repeated for credit. Credit can be earned for only one of MATH 216, 256, 286, or 316.

## MATH 333. Directed Tutoring

Consent of instructor required. Enrollment in the secondary teaching certificate program with concentration in Mathematics and permission of instructor. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 3 credits. F, W, Sp. Offered mandatory credit/no credit.

## MATH 351. Principles of Analysis

MATH 215 and 217. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 451.

## MATH 354. Fourier Analysis and its Applications

Permission required after credit earned in MATH 454. (Prerequisites enforced at registration.) MATH 216, 256, 286, or 316. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 450 or 454.

## MATH 371 / ENGR 371. Numerical Methods for Engineers and Scientists

ENGR 101; one of MATH 216, 256, 286, or 316, and one of MATH 215, 217, 417, or 419. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 471 or 472 .

## MATH 385. Mathematics for Elementary School Teachers

One year each of high school algebra and geometry. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 485.

## MATH 389. Explorations in Math Research

Consent of department required. MATH 215 and familiarity with Maple or other math modeling computer program. (3). (BS). May not be repeated for credit.

## MATH 395. Honors Analysis I

MATH 296 or permission of the Honors advisor. (4). (BS). May not be repeated for credit. F.

## MATH 396. Honors Analysis II

MATH 395. (4). (BS). May not be repeated for credit. W.

## MATH 399. Independent Reading

Consent of instructor required. (1-6). (INDEPENDENT). May be repeated for credit. F, W, $S p / S u, S p, S u$.
MATH 404. Intermediate Differential Equations and Dynamics
MATH 216, 256, 286 or 316. (3). (BS). May not be repeated for credit.

## MATH 412. Introduction to Modern Algebra

MATH 215, 255 or 285; and 217; only 1 credit after MATH 312. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 493. One credit granted to those who have completed MATH 312.

## MATH 416. Theory of Algorithms

[MATH 312, 412 or EECS 280] and MATH 465. (3). (BS). May not be repeated for credit.

## MATH 417. Matrix Algebra I

Three courses beyond MATH 110. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 214, 217, 419, or 420. MATH 417 and 419 not be used as electives in the Statistics concentration. F, W, Sp, Su.

## MATH 419. Linear Spaces and Matrix Theory

Four courses beyond MATH 110. (3). (BS). May not be repeated for credit. 2 credits granted to those who have completed MATH 214, 217, or 417. No credit for those who have completed or are enrolled in 420. MATH 417 and 419 not be used as electives in the Statistics concentration. F, W, Su.

## MATH 420. Advanced Linear Algebra

Linear algebra course (MATH 214, 217, 417, or 419) and one of MATH 296, 412, or 451. (3). (BS). May not be repeated for credit.

## MATH 423. Mathematics of Finance

MATH 217 and 425; EECS 183 or equivalent. (3). (BS). May not be repeated for credit.

## MATH 424. Compound Interest and Life Insurance

MATH 215, 255, or 285 or permission of instructor. (3). (BS). May not be repeated for credit.
MATH 425 / STATS 425. Introduction to Probability
MATH 215. (3). (BS). May not be repeated for credit. F, W, Sp, Su.

## MATH 429. Internship

Concentration in Mathematics. (1). (EXPERIENTIAL). May be elected three times for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of MATH 429, the final grade is posted for both term's elections. May not apply toward a Mathematics concentration. May be used to satisfy the Curriculum Practical Training (CPT) required of foreign students. Internship credit is not retroactive and must be prearranged. Offered mandatory credit/no credit.

## MATH 431. Topics in Geometry for Teachers

One of MATH 215, 255, or 285 (completed with a minimum grade of C- or better), and MATH 217 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## MATH 433. Introduction to Differential Geometry

MATH 215 (or 255 or 285), and 217. (3). (BS). May not be repeated for credit. F.

## MATH 450. Advanced Mathematics for Engineers I

Permission required after credit earned in MATH 354 or 454. Consent of department required.
(Prerequisites enforced at registration.) MATH 215, 255, or 285. (4). (BS). May not be repeated for credit.
No credit granted to those who have completed or are enrolled in MATH 354 or 454. F, W, Su.

## MATH 451. Advanced Calculus I

Previous exposure to abstract mathematics, e.g. MATH 217 and 412. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 351. F, W, Sp.

## MATH 452. Advanced Calculus II

MATH 217, 419, or 420; and MATH 451. (3). (BS). May not be repeated for credit. W.

## MATH 454. Boundary Value Problems for Partial Differential Equations

Permission required after credit earned in MATH 354 or 450. (Prerequisites enforced at registration.) MATH 216, 256, 286 or 316. (3). (BS). May not be repeated for credit. Students with credit for MATH 354 can elect MATH 454 for one credit. No credit granted to those who have completed or are enrolled in MATH 450. F, W, Sp.

## MATH 462. Mathematical Models

MATH 216, 256, 286, or 316; and MATH 214, 217, 417, or 419. Students with credit for MATH 463 must have department permission to elect MATH 462. (3). (BS). May not be repeated for credit. Students with credit for MATH 362 must have department permission to elect MATH 462.

MATH 463 / BIOINF 463 / BIOPHYS 463. Mathematical Modeling in Biology
MATH 214, 217, 417, or 419; and MATH 216, 256, 286, or 316. (3). (BS). May not be repeated for credit.

## MATH 465. Introduction to Combinatorics

Linear Algebra (one of MATH 214, 217, 256, 286, 296, 417, or 419) or permission of instructor. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 565 or 566. Rackham credit requires additional work.

## MATH 466 / EEB 466. Mathematical Ecology

MATH 217, 417, or 419; MATH 256, 286, or 316; and MATH 450 or 451. (3). May not be repeated for credit. Rackham credit requires additional work.

## MATH 471. Introduction to Numerical Methods

MATH 216, 256, 286, or 316; and 214, 217, 417, or 419; and a working knowledge of one high-level computer language. No credit granted to those who have completed or are enrolled in MATH 371 or 472. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 371 or 472 . F, W, SU.

## MATH 472. Numerical Methods with Financial Applications

Differential Equations (MATH 216, 256, 286, or 316); Linear Algebra (MATH 214, 217, 417, or 419);
working knowledge of a high-level computer language. Recommended: MATH 425. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 471 or 371.

## MATH 475. Elementary Number Theory

At least three terms of college Mathematics are recommended. (3). (BS). May not be repeated for credit. W.

## MATH 476. Computational Laboratory in Number Theory

Prior or concurrent enrollment in MATH 475 or 575. (1). (BS). May not be repeated for credit. W.

## MATH 481. Introduction to Mathematical Logic

MATH 412 or 451 or equivalent experience with abstract mathematics. (3). (BS). May not be repeated for credit. F.

## MATH 485 / EDUC 485. Mathematics for Elementary School Teachers and Supervisors

One year of high school algebra or permission of the instructor. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in MATH 385. May not be included in a concentration plan in Mathematics. F, Su.

## MATH 486. Concepts Basic to Secondary Mathematics

One of MATH 215, 255, or 285 (completed with a minimum grade of C- or better), and MATH 217 (completed with a minimum grade of $C$ - or better) OR permission of instructor. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## MATH 487. Number Theory and Algebra for Secondary Teachers

Math 486 or the prerequisites to 486 (One of MATH 215, 255, or 285 completed with a minimum grade of $C$ - or better, AND MATH 217 completed with a minimum grade of $C$ - or better OR permission of instructor). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## MATH 489. Mathematics for Elementary and Middle School Teachers

MATH 385. (Prerequisites enforced at registration.) (3). May not be repeated for credit. May not be used in any Graduate program in Mathematics.

MATH 490. Introduction to Topology
MATH 451 or equivalent experience with abstract mathematics. (3). (BS). May not be repeated for credit. W.

## MATH 493. Honors Algebra I

MATH 296. (3). (BS). May not be repeated for credit.

## MATH 494. Honors Algebra II

MATH 493. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MATH 497. Topics in Elementary Mathematics

MATH 489 or permission of instructor. (3). (BS). May be repeated for a maximum of 6 credits. F.

## MATH 498. Topics in Modern Mathematics

Senior Mathematics concentrators and Master Degree students in Mathematical disciplines. (3). (BS). May not be repeated for credit.

## MATH 501. Applied \& Interdisciplinary Mathematics Student Seminar

At least two 300 or above level math courses, and Graduate standing; Qualified undergraduates with permission of instructor only. (1). May be repeated for a maximum of 6 credits. Offered mandatory credit/no credit.

## MATH 520. Life Contingencies I

MATH 424 and 425 with minimum grade of C-, plus declared Actuarial/Financial Mathematics Concentration. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## MATH 521. Life Contingencies II

MATH 520 with a grade of C- or higher. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## MATH 523. Loss Models I

MATH/STATS 425. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MATH 524. Loss Models II

STATS 426 and MATH 523. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MATH 525 / STATS 525. Probability Theory

MATH 451 (strongly recommended). MATH 425/STATS 425 would be helpful. (3). (BS). May not be repeated for credit.

## MATH 526 / STATS 526. Discrete State Stochastic Processes

MATH 525 or STATS 525 or EECS 501. (3). (BS). May not be repeated for credit.

## MATH 528. Topics in Casualty Insurance

MATH 217, 417, or 419. (3). (BS). May not be repeated for credit.

## MATH 537. Introduction to Differentiable Manifolds

MATH 420, and 590 or 591. (3). (BS). May not be repeated for credit.

## MATH 555. Introduction to Functions of a Complex Variable with Applications

MATH 451 or equivalent experience with abstract mathematics. (3). (BS). May not be repeated for credit.

## MATH 556. Applied Functional Analysis

MATH 217, 419, or 420; MATH 451; and MATH 555. (3). (BS). May not be repeated for credit. F.

## MATH 557. Applied Asymptotic Analysis

MATH 217, 419, or 420; MATH 451; and MATH 555. (3). (BS). May not be repeated for credit. W.

## MATH 558. Applied Nonlinear Dynamics

MATH 451. (3). (BS). May not be repeated for credit.
MATH 559. Selected Topics in Applied Mathematics
MATH 451; and 217, 419, or 420. (3). (BS). May be repeated for a maximum of 6 credits.
MATH 561 / IOE 510 / TO 518. Linear Programming I
MATH 217, 417, or 419. (3). (BS). May not be repeated for credit. F, W, Sp.

## MATH 562 / IOE 511. Continuous Optimization Methods

MATH 217, 417, or 419. (3). (BS). May not be repeated for credit.

## MATH 565. Combinatorics and Graph Theory

MATH 412 or 451 or equivalent experience with abstract mathematics. (3). (BS). May not be repeated for credit. F.

MATH 566. Combinatorial Theory
MATH 412 or 451 or equivalent experience with abstract mathematics. (3). (BS). May not be repeated for credit.

MATH 567. Introduction to Coding Theory
One of MATH 217, 419, 420. (3). (BS). May not be repeated for credit.

## MATH 571. Numerical Linear Algebra

MATH 214, 217, 417, 419, or 420; and one of MATH 450, 451, or 454. (3). (BS). May not be repeated for credit.

## MATH 572. Numerical Methods for Differential Equations

MATH 214, 217, 417, 419, or 420; and one of MATH 450, 451, or 454. (3). (BS). May not be repeated for credit. W.

## MATH 573. Financial Mathematics I

(3). (BS). May not be repeated for credit.

## MATH 574. Financial Mathematics II

MATH 526 and MATH 573. (Prerequisites enforced at registration.) Although MATH 506 is not a prerequisite for MATH 574, it is strongly recommended that either these courses are taken in parallel, or MATH 506 precedes MATH 574. (3). (BS). May not be repeated for credit.

MATH 575. Introduction to Theory of Numbers I
MATH 451 and 420 or permission of instructor. (1-3). (BS). May not be repeated for credit. Students with credit for MATH 475 can elect MATH 575 for 1 credit. F.

## MATH 582. Introduction to Set Theory

MATH 412 or 451 or equivalent experience with abstract mathematics. (3). (BS). May not be repeated for credit. W.

## MATH 590. Introduction to Topology

MATH 451. (3). (BS). May not be repeated for credit. F. Rackham credit requires additional work.

## MATH 591. Differentiable Manifolds

MATH 451, 452 and 590. (3). (BS). May not be repeated for credit. F.
MATH 592. Introduction to Algebraic Topology
MATH 591. (3). (BS). May not be repeated for credit. W.
MATH 593. Algebra I
MATH 412, 420, and 451 or MATH 494. (3). (BS). May not be repeated for credit. F.

## MATH 594. Algebra II

MATH 593. (3). (BS). May not be repeated for credit. W.

## MATH 596. Analysis I

MATH 451. (3). (BS). May not be repeated for credit. Students with credit for MATH 555 may elect MATH 596 for two credits only.

MATH 597. Analysis II
MATH 451 and 420. (3). (BS). May not be repeated for credit. W.

## Courses in LSA Molecular, Cellular, and Developmental Biology

Molecular, Cellular, and Developmental Biology (MCDB)
MCDB 300. Undergraduate Research
Consent of instructor required. Eight credits of BIOLOGY/MCDB courses; 3.0 GPA in science courses. (13). (BS). (INDEPENDENT). May be repeated for a maximum of 9 credits. Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term (MCDB 300 or 400), the final grade is posted for both term's elections. Three credits of independent research must be completed in one term to satisfy a Biology laboratory requirement. A maximum of three credits of any independent study course may count toward the Biology concentration programs.

## MCDB 301. Active Learning Assistant

Consent of instructor required. BIOLOGY 171, 172/174, and 173, as well as experience in the target course subject matter. (2). (EXPERIENTIAL). May be elected four times for credit. 8 credits max allowed between EEB 301 and MCDB 301. Offered mandatory credit/no credit.

## MCDB 302. Teaching Experience for Undergraduates

Consent of instructor required. (1-3). (EXPERIENTIAL). May not be repeated for credit.

## MCDB 306. Introductory Genetics Laboratory

BIOLOGY 171 \& 172 (or 174) \& 173; or BIOLOGY 195 \& 173. (Prerequisites enforced at registration.) Prior or concurrent enrollment in BIOLOGY 305. (3). (BS). May not be repeated for credit. F and W. Satisfies a Biology laboratory requirement.

## MCDB 308. Developmental Biology Laboratory

BIOLOGY 171, 172 or 174, and 173; or BIOLOGY 195 and 173. (Prerequisites enforced at registration.) BIOLOGY 205. (3). (BS). May not be repeated for credit. W. Satisfies a Biology laboratory requirement.

## MCDB 310. Introductory Biochemistry

CHEM 210; and one of: BIOLOGY 172 or 174 or [195 and 173]. (Prerequisites enforced at registration.) Prior or concurrent enrollment in CHEM 215. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLCHEM 415 or 451 or 515, or CHEM 351 or 451.

## MCDB 321. Introductory Plant Physiology Lectures

BIOLOGY 162 or 163 or [171 and (172 or 174)] or 195. (Prerequisites enforced at registration.) College Physics recommended. (3). (BS). May not be repeated for credit.

## MCDB 351. Synapses

BIOLOGY 222 or 225. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit.

## MCDB 352. Neurobiology of Sensory and Motor Systems

BIOLOGY 225. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLOGY 222.

## MCDB 396. Science Outreach for Biology

BIOLOGY 172. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 397 / EEB 397. Writing in Biology

MCDB 300 or 400, or EEB 300 or 400, or permission of instructor. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in EEB 301 or MCDB 301.

MCDB 399 / EEB 399. Doing Science: An Introduction to Experimental Design in the Life Sciences Prior or concurrent enrollment in MCDB or EEB 300. (1 in the half-term). (BS). May not be repeated for credit.

## MCDB 400. Advanced Research

MCDB 300. (Prerequisites enforced at registration.) 12 credits of biology, 3.0 average in science, and permission of faculty member in biology. (1-3). (BS). (INDEPENDENT). May be repeated for a maximum of 9 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of MCDB 400, the final grade is posted for both term's elections. Three credits of independent research must be completed in one term to satisfy a Biology laboratory requirement. A maximum of three credits of any independent study course may count toward the Biology concentration programs.

## MCDB 401. Advanced Topics in Biology

Seniors or Graduate standing. Prerequisites will be set by the instructor as appropriate for each section. (3). (BS). May be repeated for a maximum of 6 credits.

## MCDB 402. Molecular Biology of Pain and Sensation

BIOLOGY 222 or BIOLOGY 225 or MCDB 422. (Prerequisites enforced at registration.) BIOLOGY 305; MCDB 310, BIOLCHEM 415 or CHEM 351; and MCDB 423. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

MCDB 403. Molecular and Cell Biology of the Synapse
One of: MCDB 310, MCDB 311, BIOLCHEM 415, or CHEM 351. (Prerequisites enforced at registration.) BIOLOGY 305 and MCDB 422. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 404 / EEB 404. Genetics, Development, and Evolution

BIOLOGY 305. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 405. Molecular Basis of Development

BIOLOGY 305; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 410. Capstone: Integrating Cellular and Molecular Biology Concepts

BIOLOGY 305 and (MCDB 310, CHEM 351, or BIOLCHEM 415); or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 411. Protein Structure and Function

MCDB 310, BIOLCHEM 415, or CHEM 351. Or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## MCDB 412. Teaching Biology

Consent of instructor required. (3). (EXPERIENTIAL). May be elected twice for credit. F.

## MCDB 415. Microbial Genetics

BIOLOGY 305; and MCDB 310, BIOLCHEM 415, or CHEM 351. Or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 416 / EEB 416. Introduction to Bioinformatics

BIOLOGY 305 and EEB 390, or graduate standing. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 417. Chromosome Structure and Function

BIOLOGY 305. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 418. Endocrinology

BIOLOGY 225; BIOLOGY 305; and MCDB 310 or BIOLCHEM 415 or CHEM 351 (or consent of instructor). (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## MCDB 419. Endocrinology Laboratory

Prior or concurrent enrollment in BIOLOGY 225 or 310 or 311, or MCDB 418 or 426. (3). (BS). May not be repeated for credit. F. Satisfies a Biology laboratory requirement.

## MCDB 421. Topics in Cellular and Molecular Neurobiology

BIOLOGY 225 and PSYCH 230 or NEUROSCI 601. (3). (BS). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## MCDB 422. Brain Development, Plasticity, and Circuits

MCDB 310 or 311, or BIOLCHEM 415, or CHEM 351; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## MCDB 423. Introduction to Research in Cellular and Molecular Neurobiology

BIOLOGY 173. (Prerequisites enforced at registration.) BIOLOGY 225 or BIOLOGY 222; or concurrent enrollment in MCDB 422. (3). (BS). May not be repeated for credit. F and W. Satisfies a Biology laboratory requirement.

## MCDB 424. Behavioral Neurobiology Laboratory

(BIOLOGY 225 or PSYCH 230) and BIOLOGY 173. (Prerequisites enforced at registration.) BIOLOGY 305.
(2). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 426. Molecular Endocrinology

BIOLOGY 225; and one of: MCDB 310 or 311, or BIOLCHEM 415, or CHEM 351; or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 427. Molecular Biology

BIOLOGY 305, and one of MCDB 310 or BIOLCHEM 415 or CHEM 351; OR Graduate standing. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. F.

## MCDB 428. Cell Biology

MCDB 310, BIOLCHEM 415, or CHEM 351; or graduate standing. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. Students with credit for MCDB 320 must obtain permission of instructor. W.

## MCDB 429. Laboratory in Cell and Molecular Biology

BIOLOGY 173. (Prerequisites enforced at registration.) MCDB 427 or 428, or concurrent enrollment in MCDB 428. (3). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BIOLCHEM 416 or 516. This course can be used to satisfy requirements for the Cell and Molecular Biology Concentration and the Biology Concentration. W. Satisfies a Biology laboratory requirement.

## MCDB 430. Molecular Biology of Plants

BIOLOGY 305; and MCDB 310, BIOLCHEM 415, or CHEM 351. Or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## MCDB 433. Plant Metabolic Biochemistry

BIOLOGY 305 and (MCDB 310, BIOLCHEM 415, or CHEM 351). (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 435. Intracellular Trafficking

BIOLOGY 305; or Graduate Standing. (Prerequisites enforced at registration.) MCDB 428. (3). (BS). May not be repeated for credit.

## MCDB 436. Introductory Immunology

MCDB 310, BIOLCHEM 415, or CHEM 351. Or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Only one of MICRBIOL 440 or IMMUNO 440 or MCDB 436 will count toward a Microbiology major.

## MCDB 437. Microbial Communication and Development

BIOLOGY 305; and one of: MCDB 310 or BIOLCHEM 415 or CHEM 351. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 440. Cell Cycle Control and Cancer

Genetics (BIOLOGY 305) and Biochemistry (MCDB 310, CHEM 351, or BIOLCHEM 415). (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 441. Cell Biology and Disease

Consent of instructor required. MCDB 428 and [MCDB 310 or MCDB 311 or BIOLCHEM 415 or CHEM 351]. (3). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 444. Bacterial Cell Biology

BIOLOGY 305; and MCDB 310, BIOLCHEM 415, or CHEM 351. Or Graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 448. Telomerase Function in Stem Cells and Cancers

BIOLOGY 305 and (MCDB 310 or CHEM 351 or BIOLCHEM 415). (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

MCDB 450. Genetics and Molecular Biology of Complex Behavior BIOLOGY 222 or 225; BIOLOGY 305; and, one of: MCDB 310, BIOLCHEM 415, or CHEM 351. (Prerequisites
enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 453. Ion Channels and their Channelopathies

[BIOLOGY 225 OR Physiology 502 or Neuroscience 601] AND [MCDB 310 OR Biological Chem 415 OR Chem 351], OR [Permission of the instructor]. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 454. Cytoskeletal Dynamics

BIOLOGY 305; and one of: MCDB 310 or BIOLCHEM 415 or CHEM 351. (Prerequisites enforced at registration.) MCDB 427 and/or MCDB 428. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 455. Cell Biology of Neurodegeneration

BIOLOGY 222 or 225 or 305; and MCDB 310 or BIOLCHEM 415 or CHEM 351. (Prerequisites enforced at registration.) MCDB 422 or 428 . (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 456. Genes, Circuits, and Behavior

BIOLOGY 222 or 225 or MCDB 422; and BIOLOGY 305. (Prerequisites enforced at registration.) MCDB 310 or BIOLCHEM 415 or CHEM 351. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 457. Neurobiology of Sexual and Aggressive Behaviors

BIOLOGY 225 or PSYCH 230. (Prerequisites enforced at registration.) BIOLOGY 305. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 459. Brain States and Behavior

BIOLOGY 225. (Prerequisites enforced at registration.) BIOLOGY 305, MCDB 351 or 352. (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 462. Epigenetics

BIOLOGY 305; and one of MCDB 310 or BIOLCHEM 415 or CHEM 351. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 471. Advanced Methods in Biochemistry

MCDB 310, CHEM 351, or BIOLCHEM 415, or grad standing. (Prerequisites enforced at registration.) (3).
(BS). May not be repeated for credit. Rackham credit requires additional work.

## MCDB 489. Microbial Genes and Genomes

BIOLOGY 305; and one of: MCDB 310 or 311, or BIOLCHEM 415, or CHEM 351; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## MCDB 494 / EEB 494. Teaching College Science

Consent of department required. Science concentrators having completed a range of courses, such as BIOLOGY 171,172 and 173; BIOLOGY 225, 281, 305 or EEB 390; CHEM 130, 210 or 211; PHYSICS 140 or 160; or EARTH 119. (2). (BS). May not be repeated for credit.

MCDB 499 / EEB 499. Responsible Conduct of Research and Scholarship in Biology
Prior or concurrent enrollment in MCDB or EEB 300. (1). (BS). May not be repeated for credit. Does not count toward electives for the EEB major, or the Biology major or minor. Offered mandatory credit/no credit.

## Courses in LSA Near Eastern Studies

Arabic, Armenian, Persian, Turkish, and Islamic Studies (AAPTIS)

## AAPTIS 364 / HISTORY 334 / MENAS 334. Selected Topics in Near and Middle Eastern Studies

 (1-3). May not be repeated for credit.Arabic Studies (ARABIC)

## ARABIC 101. Elementary Arabic I

(5). May not be repeated for credit. No credit granted to those who have taken or are enrolled in ARABIC 103 (AAPTIS 103).

## ARABIC 102. Elementary Arabic II

ARABIC 101 (AAPTIS 101) (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) ARABIC 101 (AAPTIS 101) or by assignment to ARABIC 102 (AAPTIS 102) by Placement test. (5). May not be repeated for credit. No credit granted to those who have taken or are enrolled in ARABIC 103 (AAPTIS 103).

## ARABIC 103. Intensive Elementary Arabic I and II

Recommended for undergraduates majoring in Arabic and those who need Arabic for academic and research purposes. (10 in the half-term). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ARABIC 101 or 102.

## ARABIC 201. Intermediate Arabic I

ARABIC 102 (AAPTIS 102) or ARABIC 103 (AAPTIS 103) completed with a minimum grade of C- or better; or by assignment to ARABIC 201 by placement test. (Prerequisites enforced at registration.) ARABIC 102 (AAPTIS 102), ARABIC 103 (AAPTIS 103), or by assignment to ARABIC 201 by placement test. (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ARABIC 203 (AAPTIS 205).

## ARABIC 202. Intermediate Arabic II

ARABIC 201 (AAPTIS 201) (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) ARABIC 201 (AAPTIS 201) or by assignment to ARABIC 202 (AAPTIS 202) by placement test. (5). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ARABIC 203 (AAPTIS 205).

## ARABIC 203. Intensive Intermediate Arabic I and II

ARABIC 102 (AAPTIS 102) with at least a C-. (Prerequisites enforced at registration.) ARABIC 102 or 103. Recommended for Arabic majors and those who need Arabic for academic and research purposes. (10 in the half-term). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ARABIC 201 or 202.

## ARABIC 401. Advanced Arabic I

ARABIC 202 (AAPTIS 202), ARABIC 203 (AAPTIS 205) completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) ARABIC 202 (AAPTIS 202), ARABIC 203 (AAPTIS 205) or assignment to ARABIC 401 by placement test. (5). May not be repeated for credit.

## ARABIC 402. Advanced Arabic II

ARABIC 401 (AAPTIS 403) (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) ARABIC 401 (AAPTIS 403) or by assignment to ARABIC 402 (AAPTIS 404) by placement test. (5). May not be repeated for credit.

## ARABIC 410. Topics in Arabic Language

Completion of ARABIC 202. Students cannot elect the same topic twice. (3). May be elected twice for credit. Taught in Arabic.

ARABIC 499. Independent Study in Arabic
Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit.

## ARABIC 501. Advanced Arabic Conversation and Composition

ARABIC 402 (AAPTIS 404) or equivalent. Taught in Arabic. (3). May not be repeated for credit.
ARABIC 503. Classical Arabic Grammar
Three years of Arabic study. (3). May not be repeated for credit.

## ARABIC 504. Advanced Arabic Media I

ARABIC 402 (AAPTIS 404) or equivalent. (4). May not be repeated for credit.

## ARABIC 506. Arabic Phonology and Morphophonology

ARABIC 202 (AAPTIS 202) or ARABIC 203 (AAPTIS 205) (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to those who are enrolled in or have completed ARABIC 606.

## ARABIC 507 / LING 433. Arabic Syntax and Semantics

ARABIC 202 (AAPTIS 202) or ARABIC 203 (AAPTIS 205) completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

ARABIC 508. Arabic Historical Linguistics and Dialectology
ARABIC 202 (AAPTIS 202) or ARABIC 203 (AAPTIS 205) (completed with a minimum grade of C or better). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## ARABIC 509. Arabic Second Language Acquisition

ARABIC 202 (AAPTIS 202) or ARABIC 203 (AAPTIS 205) completed with a minimum grade of C or better. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## ARABIC 510. Topics in Arabic Language

ARABIC 402 or advanced proficiency. Students may not take the same topic twice. (3). May be elected three times for credit. May be elected more than once in the same term.

## ARABIC 513. Arabic-English Translation: Theory and Practice

Completion of ARABIC 402 or permission of the instructor. (3). May not be repeated for credit. Rackham credit requires additional work.

ARABIC 600. Reading Modern Arab Authors in Arabic
ARABIC 402, ARABIC 501, or permission of instructor. (3). May be repeated for a maximum of 6 credits.

## ARABIC 601. Modern Arabic Fiction

ARABIC 402 or reading knowledge of Arabic. (3). May not be repeated for credit.

## ARABIC 602. Modern Arabic Nonfiction

ARABIC 401 or reading knowledge of Arabic. (3). May not be repeated for credit.

## ARABIC 604. Modern Arabic Poetry

ARABIC 402; fluency in Arabic at the advanced level. (3). May be repeated for a maximum of 6 credits.

## ARABIC 610. Topics in Arabic Language

A minimum of two terms of 500-level Arabic coursework. Students cannot elect the same topic twice. (3). May be elected three times for credit. May be elected more than once in the same term.

## Armenian Studies (ARMENIAN)

## ARMENIAN 101. Western Armenian I

(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ARMENIAN 103 (ARMENIAN 173/AAPTIS 173).

## ARMENIAN 102. Western Armenian II

ARMENIAN 101 (AAPTIS 171). (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ARMENIAN 103(AAPTIS 173).

ARMENIAN 201. Intermediate Western Armenian I
ARMENIAN 102 (AAPTIS/ARMENIAN 172) or ARMENIAN 103 (AAPTIS/ARMENIAN 173). (4). May not be repeated for credit.

ARMENIAN 202. Intermediate Western Armenian II
ARMENIAN 201 (AAPTIS 271). (4). (Lang Req). May not be repeated for credit.
ARMENIAN 205. Intermediate Eastern Armenian I
ARMENIAN 105 (ARMENIAN/AAPTIS 182) or ARMENIAN 107 (ARMENIAN/AAPTIS 183). (4). May not be repeated for credit.

ARMENIAN 287 / HISTORY 287. From Natives to Foreigners: Armenians in Turkey and the Diaspora (3). (SS). May not be repeated for credit. Taught in English.

## ARMENIAN 410. Topics in Armenian Language

At least two years of coursework in Armenian or permission of instructor. (3). May be elected three times for credit.

## ARMENIAN 499. Independent Study in Armenian

Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit. May be elected more than once in the same term.

Hebrew Studies (HEBREW)

## HEBREW 101. Elementary Modern Hebrew I

(5). May not be repeated for credit. No credit granted to those who have taken or are enrolled in HEBREW 103 (HJCS 110).

## HEBREW 102. Elementary Modern Hebrew II

HEBREW 101. (5). May not be repeated for credit. No credit granted to those who have taken or are enrolled in HEBREW 103 (HJCS 110).

HEBREW 103. Intensive Elementary Modern Hebrew
(10). May not be repeated for credit. No credit granted to those who have taken or are enrolled in HEBREW 101 (HJCS 101) or HEBREW 102 (HJCS 102).

## HEBREW 201. Intermediate Modern Hebrew I

HEBREW 102 (HJCS 102) or HEBREW 103 (HJCS 110). (5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in HEBREW 203 (HJCS 210).

## HEBREW 202. Intermediate Modern Hebrew II

HEBREW 201 (HJCS 201). (5). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in HEBREW 203 (HJCS 210).

HEBREW 203. Intensive Intermediate Modern Hebrew
HEBREW 102 (HJCS 102). (10). (Lang Req). May not be repeated for credit. No credit granted to those who have completed HEBREW 201 (HJCS 201) or HEBREW 202 (HJCS 202).

## HEBREW 301. Advanced Hebrew I

HEBREW 202 (HJCS 202) or HEBREW 203 (HJCS 210). (3). May not be repeated for credit.

## HEBREW 302. Advanced Hebrew II

HEBREW 301 (HJCS 301). (3). May not be repeated for credit.
HEBREW 404. Ethnicity in Israeli Literature and Culture
HEBREW 302 (HJCS 302). (3). May not be repeated for credit.

## HEBREW 409. Readings in Modern Hebrew

Consent of instructor required. Intermediate level proficiency or higher in modern Hebrew. (1-2).
(INDEPENDENT). May be elected four times for credit. May be elected more than once in the same term.

## HEBREW 410. Topics in Modern Hebrew Language

Completion of at least HEBREW 301 or advanced Hebrew proficiency. (3). May be elected three times for credit.

## HEBREW 499. Independent Study in Hebrew

Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit. May be elected more than once in the same term.

Hebrew and Jewish Cultural Studies (HJCS)

## HJCS 290. Humanities Topics in Hebrew, Jewish and Cultural Studies

(3-4). (HU). May be elected twice for credit.

## HJCS 291. Topics in Hebrew and Judaic Cultural Studies

(3). May be repeated for credit. May be elected more than once in the same term. Taught in English.

Near East Studies (NEAREAST)

NEAREAST 100. Peoples of the Middle East
(4). (HU). May not be repeated for credit.

NEAREAST 200 / RELIGION 201. Introduction to World Religions: Near Eastern
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 201. Madness, Medicine, and Magic in the Middle East
(3). (HU). May not be repeated for credit.

NEAREAST 207 / JUDAIC 277 / RELIGION 277. The Land of Israel/Palestine through the Ages (4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.

NEAREAST 216 / RELIGION 204. Introduction to Islam
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 218. Armenia: Culture and Ethnicity
(3). (HU). May not be repeated for credit.

NEAREAST 219 / GTBOOKS 246. Great Books of the Middle East
(3). (HU). May not be repeated for credit.

NEAREAST 220. Religion and Revolutions: A Comparison of the French, Russian, Turkish, and Iranian Cases
(3). (HU). May not be repeated for credit.

NEAREAST 221. Iranian Cinema
(3). (HU). (R\&E). May not be repeated for credit.

NEAREAST 235 / RELIGION 121. Introduction to the Tanakh/OId Testament
(3). (HU). May not be repeated for credit.

NEAREAST 236 / RELIGION 122. Introduction to the New Testament
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 238 / RELIGION 280. The Historical Jesus in Christianity, Judaism, and Islam
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 239. Mythology of the Ancient Near East
(3). (HU). May not be repeated for credit.

NEAREAST 240. Ancient Egypt: Religion and Culture
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 242 / RELIGION 270. Introduction to Rabbinic Literature
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in HJCS 470 or JUDAIC 470 or HJCS 570 or ACABS 570 or JUDAIC 570.

NEAREAST 243. Ancient Egypt and its World
(4; 3 in the half-term). (HU). May not be repeated for credit.

NEAREAST 255 / JUDAIC 296 / RELIGION 296. Perspectives on the Holocaust
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
NEAREAST 256 / JUDAIC 256. Israeli Literature and Culture
(3). (HU). May not be repeated for credit.

NEAREAST 275 / AMCULT 215 / ARABAM 215. Introduction to Arab-American Studies
(4). (HU). (R\&E). May not be repeated for credit.

NEAREAST 276 / JUDAIC 205. What is Judaism?
(4). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in JUDAIC 505 or HJCS 576.

NEAREAST 278 / EARTH 238 / ENVIRON 238 / HISTORY 238. Zoom: A History of Everything (4; 3-4 in the half-term). (ID). May not be repeated for credit.

NEAREAST 279 / JUDAIC 255. Tel Aviv and Jerusalem in Israeli Culture
(3). (HU). May not be repeated for credit.

NEAREAST 280 / JUDAIC 250 / SAC 250. Jewish Film: Race, Ethnicity, and Nationality (4). (HU). (R\&E). May not be repeated for credit.

NEAREAST 281 / JUDAIC 281 / SLAVIC 281. Jews in the Modern World: Texts, Images, Ideas (4). (HU). (R\&E). May not be repeated for credit.

NEAREAST 284 / HISTORY 244 / JUDAIC 244 / MENAS 244. The History of the Arab-Israeli Conflict (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

NEAREAST 285 / HISTART 285. Visual Culture Islam
(4). (HU). May not be repeated for credit.

NEAREAST 287 / HISTORY 290 / JUDAIC 290. Jews and Muslims
(3). (HU). May not be repeated for credit.

NEAREAST 290. Topics in Near Eastern Studies
(3). May be elected twice for credit. May be elected more than once in the same term.

NEAREAST 291. Humanities Topics in Near Eastern Studies
(3). (HU). May be elected twice for credit.

NEAREAST 295. First Year Seminar in Near Eastern Studies
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

NEAREAST 315. Introduction to Arab Culture
(4). (HU). (R\&E). May not be repeated for credit.

NEAREAST 317. Turkey in the 20th century: Modernity and the Politics of Culture (3). (ID). May not be repeated for credit.

NEAREAST 319 / HISTORY 306. History of the Ottoman Empire: The "Classical Age", (ca. 1300-1600) Not available to students who have completed AAPTIS 291 (\#16) or HISTORY 303 (\# 10) when taught with the topic "Ten Sultans, One Empire: The Ottoman Classical Age". (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

NEAREAST 320 / HISTORY 307. History of the Ottoman Empire: The "Post-Classical Age", (ca. 16001922)

Not available to students who have completed AAPTIS 291 (\#17) or HISTORY 303 (\# 13) when taught with the topic "The Ottoman Empire in the 'Post Classical Age'". (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

NEAREAST 321. Jihad in History
(3). (HU). May not be repeated for credit.

NEAREAST 322 / RELIGION 363. The Qur'an and Its Interpretations
No prior knowledge of Islam is necessary, although some knowledge of the Bible would be helpful. (3). (HU). May not be repeated for credit.

NEAREAST 323. The Prophet Muhammad in Islam
(3). (HU). May not be repeated for credit.

NEAREAST 324. Persian Literature in Translation
(3). May not be repeated for credit.

NEAREAST 325. Introduction to Arab Literature in Translation
(3). (HU). May not be repeated for credit.

NEAREAST 326. The Arab-Israeli Conflict in Middle Eastern Literature
(3). (HU). May not be repeated for credit.

NEAREAST 335 / RELIGION 359. History and Religion of Ancient Judaism
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 336 / RELIGION 350. Early Christianity, 50-650 CE
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 337 / ANTHRARC 384. Ancient Mesopotamia: History and Culture
Sophomore standing. (4; 3 in the half-term). (ID). May not be repeated for credit.
NEAREAST 338 / ANTHRARC 381 / HISTART 382. Introduction to Egyptian Archaeology
(4; 3 in the half-term). (HU). May not be repeated for credit.
NEAREAST 340 / ASIAN 340 / HISTORY 340 / MENAS 340 / REEES 340. From Genghis Khan to the Taliban: Modern Central Asia
(4; 3-4 in the half-term). (SS). (R\&E). May not be repeated for credit.
NEAREAST 355 / CLARCH 327 / CLCIV 327 / RELIGION 326. Jews in the Roman Mediterranean:
Archaeology, Religion, and Culture
(3). (ID). May not be repeated for credit.

NEAREAST 375 / ASIAN 324 / HISTORY 325 / MEMS 325 / RELIGION 325. The History of Islam in South Asia
(4). (HU). (R\&E). May not be repeated for credit.

NEAREAST 376 / HISTORY 394. History of the Turkish Republic
(3). (HU). May not be repeated for credit.

NEAREAST 380 / AMCULT 320 / JUDAIC 320. The Jewish Graphic Novel
(3). (HU). May not be repeated for credit.

NEAREAST 386 / JUDAIC 360. A Global History of the Jews of Spain
JUDAIC 205. (3). (HU). May not be repeated for credit.
NEAREAST 390. Topics in Near Eastern Studies
At least one previous course in Near Eastern studies. (3). May be elected twice for credit. May be elected more than once in the same term.

NEAREAST 391. Humanities Topics in Near Eastern Studies
At least one previous course in Near Eastern studies. Students should not elect the same topic twice. (3). (HU). May be elected twice for credit.

NEAREAST 395. Study Abroad in the Near East
Consent of instructor required. (1-3). (EXPERIENTIAL). May be elected twice for credit.
NEAREAST 396. Internship in Near Eastern Studies
Consent of department required. (1). (EXPERIENTIAL). (INDEPENDENT). May be elected twice for credit.
NEAREAST 413 / HISTORY 428. The Rise of Islam
Junior standing or permission of instructor. Taught in English. (3). May not be repeated for credit.
NEAREAST 414. Nationalities in the Ottoman Empire: The Rise and Demise of the Western Armenians (3). May not be repeated for credit.

NEAREAST 415. The Literature of the Turks
(3). May not be repeated for credit.

NEAREAST 416. The Sultan and His Subjects: Society and Culture in the Ottoman Empire
(3). May not be repeated for credit.

NEAREAST 419 / HISTORY 537. The Near East in the Period of the Crusades, 945-1258
Junior standing. (3). (R\&E). May not be repeated for credit.
NEAREAST 421 / RELIGION 465. Islamic Mysticism: Sufism in Time and Space
(3). May not be repeated for credit.

NEAREAST 422 / RELIGION 467. Shi'ism: The History of Messianism and the Pursuit of Justice in Islamdom
Junior standing or permission of instructor. (3). May not be repeated for credit.
NEAREAST 423. Islamic Law
NEAREAST 216. (3). May not be repeated for credit.

NEAREAST 424 / RELIGION 461. Islamic Intellectual History
Taught in English. (3). May not be repeated for credit.
NEAREAST 426. An Introduction to Modern Armenian Literature
(3). May not be repeated for credit.

NEAREAST 429. Topics in Modern Arabic Literature in Translation
(3). May be elected three times for credit.

NEAREAST 430. History of Arabic Literature in English
(3). May not be repeated for credit.

NEAREAST 432 / HISTORY 429 / RELIGION 496 / WOMENSTD 471. Gender and Sexuality in Pre-Modern Islam
Students should preferably have had one course in Islamic Studies. (3). May not be repeated for credit.
NEAREAST 433 / WOMENSTD 496. Gender and Representation in the Modern Middle East
(3). May not be repeated for credit.

NEAREAST 437 / CLCIV 483 / RELIGION 488. Christianity and Hellenistic Civilizations
(3). May not be repeated for credit.

NEAREAST 438. Exhibiting Ancient Egypt: Past Culture in the Modern Museum
(3). May not be repeated for credit.

NEAREAST 440 / AAS 474. The Archaeology of Nubia
NEAREAST 243 (ACABS 281), NEAREAST 338 (ACABS 382), AAS 200, or ANTHRARC 282. (3). May not be repeated for credit.

NEAREAST 441 / WOMENSTD 487. Gender and Society in Ancient Egypt
Some familiarity with Egypt is helpful. (3). May not be repeated for credit.
NEAREAST 442 / JUDAIC 470. Reading the Rabbis
NESLANG 202 or HEBREW 202. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in NEAREAST 242 (ACABS 270/HJCS 270/JUDAIC 270).

NEAREAST 455 / JUDAIC 478 / RELIGION 478. Modern Jewish Thought
(3). May not be repeated for credit.

NEAREAST 456 / JUDAIC 468 / RELIGION 469. Jewish Mysticism
(3). May not be repeated for credit.

NEAREAST 476 / JUDAIC 467 / RELIGION 471. Seminar: Topics in the Study of Judaism
(3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

NEAREAST 483 / MENAS 493. Comparative Perspectives of the Middle East and North Africa (1). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Rackham credit requires additional work.

NEAREAST 487 / HISTORY 443. Modern Middle East History
(4). May not be repeated for credit.

NEAREAST 490. Topics in Near Eastern Studies
(3). May be elected twice for credit. May be elected more than once in the same term.

## NEAREAST 492. Mini-course in Near Eastern Studies

At least one prior course in Near Eastern studies and/or related to the topic of the course. (1-3). May be elected twice for credit.

NEAREAST 498. Senior Honors Thesis
Consent of department required. (1-6). (INDEPENDENT). May be elected twice for credit.
NEAREAST 499. Independent Study in Near Eastern Studies
Consent of department required. (1-4). (INDEPENDENT). May be elected four times for credit. May be elected more than once in the same term.

## NEAREAST 517. Classical Persian Texts

PERSIAN 202. (3). May be elected four times for credit.

## NEAREAST 518. Persianate History Through Political and Cultural Texts

PERSIAN 202 or advanced reading knowledge of Persian. (3). May be repeated for a maximum of 9 credits.

## NEAREAST 520. Readings in Classical Islamic Texts

ARABIC 402. (3). May be elected four times for credit.

## NEAREAST 535. Selected Topics in Ancient Egyptian History and Culture

NEAREAST 243 or 338. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits.

## NEAREAST 590. Topics in Near Eastern Studies

Upper-level undergraduates or graduate students with previous coursework in Near Eastern studies. (3). May be elected three times for credit. May be elected more than once in the same term.

Near East Studies Languages (NESLANG)

## NESLANG 101. Elementary Classical Hebrew I

(3). May not be repeated for credit.

## NESLANG 102. Elementary Classical Hebrew II

NESLANG 101 (ACABS 101). (3). May not be repeated for credit.
NESLANG 201. Intermediate Classical Hebrew I
NESLANG 102 (ACABS 102). (3). May not be repeated for credit.
NESLANG 202. Intermediate Classical Hebrew II
NESLANG 201 (ACABS 201). (3). (Lang Req). May not be repeated for credit.
NESLANG 307 / GREEK 307. The Synoptic Gospels: Matthew, Mark and Luke
GREEK 101 and 102; and permission of instructor. (4). May not be repeated for credit.
NESLANG 410. Topics in Near Eastern Language
Students should not enroll in the same topic twice. (3). May be elected four times for credit.

## NESLANG 415. Elementary Hittite

(3). May not be repeated for credit.

## NESLANG 420. Introduction to Akkadian

(3). May not be repeated for credit.

NESLANG 430. Introduction to Middle Egyptian I
(3). May not be repeated for credit.

NESLANG 435. Introduction to Sumerian
(3). May not be repeated for credit.

NESLANG 440. Coptic I
(3). May not be repeated for credit.

## NESLANG 441. Coptic II

NESLANG 440 or permission of instructor. (3). May not be repeated for credit.

## NESLANG 450. Introductory Central Asian Language I

(4-5). May be elected three times for credit. May be elected more than once in the same term.

## NESLANG 451. Introductory Central Asian Language II

NESLANG 450 (or AAPTIS 119 or ASIANLAN 119), with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (4-5). May be elected three times for credit. May be elected more than once in the same term. May not repeat the same language at the same level.

NESLANG 460. Introduction to Demotic Egyptian
(3). May not be repeated for credit.

## NESLANG 470 / GREEK 473. Advanced Koine

Two years of Greek, one term of New Testament Greek (300 level or equivalent). (3). May not be repeated for credit.

## NESLANG 480. Intermediate Central Asian Language I

NESLANG 450 (or AAPTIS 120 or ASIANLAN 120), with a minimum grade of C- or better. (Prerequisites enforced at registration.) (3-5). May be elected three times for credit. May be elected more than once in the same term. Students may not repeat the same language at the same level.

NESLANG 499. Independent Study in Near Eastern Language
Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit. May be elected more than once in the same term.

NESLANG 513. Readings in Akkadian
NESLANG 420. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## NESLANG 514. Akkadian Literary Texts

NESLANG 513 (ACABS 412). (3). May be elected nine times for a maximum of 12 credits.
NESLANG 515. Akkadian Documents
NESLANG 513 (ACABS 412). (3). May be elected four times for credit.

Persian (PERSIAN)

## PERSIAN 101. Elementary Persian I

(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PERSIAN 103 (AAPTIS 143).

PERSIAN 102. Elementary Persian II
PERSIAN 101 (AAPTIS 141). (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PERSIAN 103 (AAPTIS 143).

## PERSIAN 201. Intermediate Persian I

PERSIAN 102 (AAPTIS 142) or PERSIAN 103 (AAPTIS 143). (4). May not be repeated for credit.

## PERSIAN 202. Intermediate Persian II

PERSIAN 201 (AAPTIS 241). (4). (Lang Req). May not be repeated for credit.

## PERSIAN 404. Modern Persian Poetry

At least two years of Persian or its equivalent are required to enroll. (3). May not be repeated for credit.

## PERSIAN 410. Topics in Persian Language

Advanced proficiency in Persian or permission of instructor. (3). May be elected three times for credit.

## PERSIAN 499. Independent Study in Persian

Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit. May be elected more than once in the same term.

## PERSIAN 504. Modern Persian Fiction

PERSIAN 202 (AAPTIS 242). (3). May not be repeated for credit.

## PERSIAN 505. Modern Persian Nonfiction

PERSIAN 202 (AAPTIS 242). Taught in Persian. (3). May not be repeated for credit.
Turkish Studies (TURKISH)

## TURKISH 101. Elementary Turkish I

(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in TURKISH 103 (AAPTIS 155).

## TURKISH 102. Elementary Turkish II

TURKISH 101 (AAPTIS 151) or equivalent. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in TURKISH 103 (AAPTIS 155).

## TURKISH 201. Intermediate Turkish I

TURKISH 102 (AAPTIS 152) or TURKISH 103 (AAPTIS 155). (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in TURKISH 203 (AAPTIS 255).

## TURKISH 202. Intermediate Turkish II

TURKISH 201 (AAPTIS 251). (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in TURKISH 203 (AAPTIS 255).

## TURKISH 410. Topics in Turkish Language

Advanced Turkish proficiency or permission of instructor. (3). May be elected three times for credit.
TURKISH 499. Independent Study in Turkish
Consent of department required. (1-4). (INDEPENDENT). May be elected three times for credit. May be elected more than once in the same term.

TURKISH 504. Modern Turkish Readings
TURKISH 202 (AAPTIS 252) or TURKISH 203 (AAPTIS 255). (3). May be elected three times for credit.

## Courses in LSA Organizational Studies

Organizational Studies (ORGSTUDY)
ORGSTUDY 101. Introduction to Leadership in Teams
(3). May not be repeated for credit.

ORGSTUDY 201. Leadership and Collaboration
(4). (SS). May not be repeated for credit. May not be counted toward a concentration in Organizational Studies.

ORGSTUDY 202. Practicum in Leadership and Collaboration
Consent of department required. ORGSTUDY 201. (3). (EXPERIENTIAL). May not be repeated for credit.
Offered mandatory credit/no credit.
ORGSTUDY 203 / ENVIRON 203. Activism
(3). (SS). May not be repeated for credit.

## ORGSTUDY 204. Nonprofits

(3). May not be repeated for credit.

## ORGSTUDY 208 / ENVIRON 208. Business and the Natural Environment

(3). (SS). May not be repeated for credit.

ORGSTUDY 299. Undergraduate Internship
Consent of department required. Declared Organizational Studies concentrators. (1). (EXPERIENTIAL). May be repeated for a maximum of 2 credits. May not be used to satisfy requirements for the organizational studies concentration. Internship credit may not be used to satisfy electives for the concentration. Offered mandatory credit/no credit.

ORGSTUDY 305. Inside Organizations
Introductory Psychology (PSYCH 111, 112, 114, or 115), introductory sociology (SOC 100, 101, 102, or 195), and ECON 101. (3). May not be repeated for credit.

ORGSTUDY 310. Formal Organizations and Environments
Introductory Psychology (PSYCH 111, 112, 114, or 115), introductory sociology (SOC 100, 101, 102, or 195), and ECON 101. (3). May not be repeated for credit.

## ORGSTUDY 395. Current Issues in Organizational Studies

Introductory psychology and sociology, and ECON 101. (1-2). May be elected three times for credit. May be elected more than once in the same term.

## ORGSTUDY 405. Negotiation and Dispute Resolution

Consent of department required. OS Concentrator. (3). May not be repeated for credit.

## ORGSTUDY 410. Advanced Research Methods in Organizational Studies

One of the following: STATS 250 or SOC 210 or ECON 251 (may be elected concurrently). Restricted to Organizational Studies seniors. (Prerequisites enforced at registration.) (4). May not be repeated for credit.

## ORGSTUDY 415. Networking

Consent of department required. Organizational Studies or Political Science Concentrator. (3). May not be repeated for credit.

ORGSTUDY 418 / ENVIRON 418. Leadership and Environmental Stewardship in Organizations
(3). May not be repeated for credit.

## ORGSTUDY 420. Nonprofit Organizations

Consent of department required. Organizational studies concentrator. (3). May not be repeated for credit.

## ORGSTUDY 425. Interest Group Politics

(3). May not be repeated for credit.

ORGSTUDY 430. Corporate Social Responsibility: Emergence, Practices, and Critiques No credit granted for students who have taken ORGSTUDY 495 with the topic (\#4) Corporate Social Responsibility. (Prerequisites enforced at registration.) Organizational Studies Students. (3). May not be repeated for credit.

## ORGSTUDY 435. The Transformation of Higher Education

Sociology 100, minimum junior standing. (3). May not be repeated for credit.

## ORGSTUDY 490. Advanced Research Team

Consent of instructor required. Enrollment in either ORGSTUDY 305 or 310; and a course in STATS. (3-4). (EXPERIENTIAL). May be elected three times for credit. May be elected more than once in the same term.

ORGSTUDY 495. Special Topics in Organizational Studies
Restricted to Organizational Studies Majors. (3). May be elected four times for credit. May be elected more than once in the same term.

## ORGSTUDY 497. Senior Honors Research I

Consent of department required. Must be accepted into the OS Honors program by review of proposal. (3 - 4). (INDEPENDENT). May not be repeated for credit. F.

## ORGSTUDY 498. Senior Honors Research II

Consent of department required. Must be accepted into the OS Honors program by review of proposal. (3 - 4). (INDEPENDENT). May not be repeated for credit. W.

## ORGSTUDY 499. Independent Study

Consent of instructor required. Restricted to Organizational Studies concentrators who have completed the core course requirements. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. No more than six credits of independent study credit may count toward an Organizational Studies concentration. F, W.

## Courses in LSA Philosophy

Philosophy (PHIL)

## PHIL 151. Philosophical Dimensions of Personal Decisions

(3; 2 in the half-term). (HU). May not be repeated for credit. Students are strongly advised not to take more than two Philosophy Introductions.

## PHIL 152. Philosophy of Human Nature

(3; 2 in the half-term). (HU). May not be repeated for credit. Students are strongly advised not to take more than two Philosophy Introductions.

## PHIL 153. Philosophy and the Arts

(3; 2 in the half-term). (HU). May not be repeated for credit. Students are strongly advised not to take more than two Philosophy Introductions.

## PHIL 154. Science Fiction and Philosophy

(3; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 155. The Nature of Science

(3; 2 in the half-term). (HU). May not be repeated for credit.
PHIL 157 / CLCIV 157. Introduction to Ancient Philosophy
(3). (HU). May not be repeated for credit.

## PHIL 158. Philosophy and Narrative

(3; 2 in the half-term). (HU). May not be repeated for credit. Students are strongly advised not to take more than two Philosophy Introductions.

## PHIL 160. Moral Principles and Problems

(4; 3 in the half-term). (HU). May not be repeated for credit.
PHIL 162. The University of Michigan: A Moral Institution?
(3; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 180. Introductory Logic

(3; 2 in the half-term). (QR/1). May not be repeated for credit. Credit is granted for only one of PHIL 180 or 201. F, W, Su.

## PHIL 181. Philosophical Issues: An Introduction

(3; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 182, 202, 231, 232, 234, or 297. F, W, Sp, Su.

PHIL 183. Critical Reasoning
(3). (HU). May not be repeated for credit.

## PHIL 196. First Year Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

## PHIL 202. Introduction to Philosophy

(3; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 181, 182, 231, 232, 234, or 297.

PHIL 224. Global Justice
(4; 2 in the half-term). (ID). (R\&E). May not be repeated for credit.
PHIL 230 / ASIAN 230 / RELIGION 230. Introduction to Buddhism
(4). (HU). May not be repeated for credit.

## PHIL 232. Problems of Philosophy

(4; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 181, 182, 202, 231, 234, or 297.

## PHIL 234. Introduction to Philosophy: Types of Philosophy

(4; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 181, 182, 202, 231, 232, or 297.

## PHIL 240 / ENVIRON 240. Environmental Ethics: Philosophical Underpinnings

(3; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 262 / RELIGION 262. Introduction to the Philosophy of Religion

(4; 3 in the half-term). (HU). May not be repeated for credit.
PHIL 263 / ASIAN 263. Introduction to Chinese Philosophy
(3). (HU). May not be repeated for credit.

## PHIL 286. Second Year Seminar in Philosophy

(3; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 294. Honors Core in Philosophy

Consent of department required. (4). (HU). May be elected twice for credit. May be elected more than once in the same term.

## PHIL 295. Honors Core Writing in Philosophy

Consent of department required. (4). (HU). May be elected twice for credit. May be elected more than once in the same term.

## PHIL 296. Honors Introduction to Logic

Honors students or permission of instructor. (3; 2 in the half-term). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 303 or 414.

## PHIL 297. Honors Introduction to Philosophy

Honors students or permission of instructor. (3; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 181, 182, 202, 231, 232, or 234.

## PHIL 303. Introduction to Symbolic Logic

(4; 3-4 in the half-term). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 296 or 414. F, W, Sp.

PHIL 305. Introduction to Formal Philosophical Methods
(4; 3 in the half-term). (MSA). (BS). (QR/1). May not be repeated for credit.

## PHIL 320. The World-View of Modern Science

(3; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 322. The Methods of Science

(3; 2 in the half-term). (ID). May not be repeated for credit.

## PHIL 331 / ASIAN 331 / RELIGION 331. Introduction to Indian Philosophy

One introductory course on Hinduism or Buddhism. (3). May not be repeated for credit.

## PHIL 334. Post-Biblical Jewish Philosophy

(3; 2 in the half-term). May not be repeated for credit.

## PHIL 340. Minds and Machines

(4; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 345. Language and Mind

One philosophy course with at least a C-. (Prerequisites enforced at registration.) (4; 3 in the half-term). (HU). May not be repeated for credit.

## PHIL 355. Contemporary Moral Problems

(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHIL 455.

## PHIL 356. Issues in Bioethics

No prerequisites; one philosophy introduction is recommended. (4; 3 in the half-term). (HU). May not be repeated for credit.

## PHIL 359. Law and Philosophy

(4; 2 in the half-term). (HU). (R\&E). May not be repeated for credit.

## PHIL 361. Ethics

One philosophy course with at least a C-. (Prerequisites enforced at registration.) (4; 3 in the half-term). (HU). May not be repeated for credit. F.

## PHIL 366. Introduction to Political Philosophy

One philosophy course with at least C-. (Prerequisites enforced at registration.) (4; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 367. 19th Century Social and Political Philosophy

One philosophy course with at least a C-. (Prerequisites enforced at registration.) (4; 3 in the half-term). (HU). May not be repeated for credit.

## PHIL 371. Phenomenology and Existential Philosophy

One philosophy course(completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3; 2 in the half-term). (HU). May not be repeated for credit.

## PHIL 375. Nietzsche's Philosophical Thought

(3; 2 in the half-term). (HU). May not be repeated for credit.

PHIL 376 / ENVIRON 376. Environmental Ethics-Living Well with Nature
(3). (HU). May not be repeated for credit.

## PHIL 381. Science and Objectivity

One Philosophy course completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (4; 3 in the half-term). (HU). May not be repeated for credit.

## PHIL 383. Knowledge and Reality

One Philosophy course (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) (4; 3 in the half-term). (HU). May not be repeated for credit.

## PHIL 388 / CLCIV 388. History of Philosophy: Ancient

One philosophy course with a grade of at least a C-. (Prerequisites enforced at registration.) Knowledge of Greek or Latin is not required. (4; 2 in the half-term). (HU). May not be repeated for credit. Taught in English. F.

PHIL 389. History of Philosophy: Seventeenth and Eighteenth Centuries
One philosophy course with at least a C-. (Prerequisites enforced at registration.) (4; 2 in the half-term).
(HU). May not be repeated for credit. W.

## PHIL 399. Independent Study

Consent of instructor required. One philosophy introduction and permission of instructor. (1-4).
(INDEPENDENT). May be elected twice for credit. F, W, Sp.

## PHIL 401. Undergraduate Honors Seminar

Open to Honors concentrators in Philosophy and others by permission of instructor. (3; 2 in the halfterm). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the firstterm to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. F.

## PHIL 402. Undergraduate Seminar in Philosophy

Two 300-level Philosophy courses completed with a C- or better. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## PHIL 406. Aristotle

One Philosophy course (completed with a minimum grade of C- or better); OR graduate standing. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## PHIL 408 / ECON 408. Philosophy and Economics

ECON 401 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## PHIL 409. Philosophy of Language

PHIL 296, 303, or 414. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 413. Formal Philosophical Methods

Satisfaction of QR/1 with either 2nd semester calculus, an advanced course in logic, a course in statistics above STATS 265, or a course in economics. (3; 2 in the half-term). (BS). May not be repeated for credit.

## PHIL 414. Mathematical Logic

One PHIL or MATH course. (3; 2 in the half-term). (BS). (QR/1). May not be repeated for credit. F.

## PHIL 420. Philosophy of Science

One course in Philosophy or Science at the 300 level or higher with a grade of C- or better; or graduate standing. (3). (BS). May not be repeated for credit. W.

## PHIL 423. Problems of Space and Time

One logic introduction and either one other philosophy course or 12 credits of science. (3; 2 in the halfterm). (BS). May not be repeated for credit.

## PHIL 425. Philosophy of Biology

One course in Philosophy or Biology. (3). (BS). May not be repeated for credit.

## PHIL 426 / LING 426. Philosophy and Linguistic Theory

One philosophy introduction, one logic introduction, or concentration in Linguistics. (3; 2 in the halfterm). May not be repeated for credit.

## PHIL 429. Ethical Analysis

PHIL 361, 366, 367 or PPE 300, (completed with a minimum grade of C- or better); OR Graduate standing. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## PHIL 430. Topics in Ethics

PHIL 361, 366, 367 or PPE 300 (completed with a minimum grade of $C$ - or better); or Graduate standing. (Prerequisites enforced at registration.) (3; 2 in the half-term). May be repeated for a maximum of 6 credits.

## PHIL 439. Aesthetics

One philosophy introduction. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 440. Philosophy of Film

One of the following: a philosophy course at the 300-level or above, one course in History of Art, one course in Screen Arts and Cultures, or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 442. Topics in Political Philosophy

PHIL 361, 366 or 367, (completed with a minimum grade of C- or better); OR Graduate standing. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## PHIL 443. Foundations of Rational Choice Theory

Two courses in Philosophy, Economics, or Psychology (or some combination thereof) and satisfaction of the Quantitative Reasoning requirement; or permission of instructor. (3). May not be repeated for credit.

## PHIL 458. Philosophy of Kant

PHIL 389 (completed with a minimum grade of C- or better); OR Graduate standing. (Prerequisites enforced at registration.) (3; 2 in the half-term). May not be repeated for credit.

## PHIL 460. Medieval Philosophy

One philosophy introduction. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 463. Topics in the History of Philosophy

One Philosophy course (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) PHIL 388 or 389, or permission of instructor. (3). May not be repeated for credit.

## PHIL 464. The Scientific Revolution

One course in History or Philosophy completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) PHIL 388 or 389. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 466. Topics in Continental Philosophy

One of PHIL 371, 375, 385, or 389 or permission of instructor. (3). May not be repeated for credit.

## PHIL 467. The Enlightenment and Skepticism

One Philosophy course or graduate standing. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## PHIL 475. Topics in 20th Century Philosophy

One introductory Philosophy course and one 300-level Philosophy course or permission of the instructor. Consent of instructor required. (Prerequisites enforced at registration.) (3; 2-3 in the half-term). May not be repeated for credit.

## PHIL 480. Philosophy of Religion

One introduction to Philosophy. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 481. Metaphysics

PHIL 345, 381, or 383. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 482. Philosophy of Mind

PHIL 345, 381, or 383. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 485. Philosophy of Action

Two courses in Philosophy or permission of instructor. (3). May not be repeated for credit.

## PHIL 487. Wittgenstein

One philosophy introduction and another course in Philosophy or permission of instructor. (3; 2 in the half-term). May not be repeated for credit.

## PHIL 498. Senior Honors in Philosophy

Consent of instructor required. Permission of department. (3; 2 in the half-term). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of PHIL 499, the final grade is posted for both term's elections. W, Su.

## PHIL 499. Senior Honors in Philosophy

Consent of instructor required. Permission of department. (3; 2 in the half-term). (INDEPENDENT). May not be repeated for credit.

Philosophy, Politics, and Economics (PPE)

## PPE 300. Introduction to Political Economy

Two introductory courses chosen from at least two disciplines: Philosophy, Political Science, and Economics. (4; 2 in the half-term). (ID). May not be repeated for credit.

## PPE 400. Seminar in Political Economy

PPE 300 with at least a C-. (Prerequisites enforced at registration.) Completion of distribution requirements for PPE concentration. (3; 2 in the half-term). May not be repeated for credit.

## PPE 402. Senior Honors Thesis

Honors standing and permission of instructor. (1-3). May not be repeated for credit. Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## Courses in LSA Physics

Physics (PHYSICS)

## PHYSICS 106. Everyday Physics

(3). (NS). (BS). May not be repeated for credit. It is recommended that School of Education students take PHYSICS 420.

## PHYSICS 107. 20th-Century Concepts of Space, Time, and Matter

High school algebra and geometry. (3). (NS). (BS). (QR/1). May not be repeated for credit. F.

## PHYSICS 109 / CHEM 109. Natural Science: Bridging the Gaps

(3). (NS). (BS). May not be repeated for credit.

## PHYSICS 112. Cosmology: The Science of the Universe

Although no science courses are required, high school physics would be helpful. Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. F.

## PHYSICS 114. Physics First-Year Seminar in the Natural Sciences

(3). (NS). (BS). May be repeated for a maximum of 6 credits.

## PHYSICS 115. Principles of Physics

(2). May not be repeated for credit. No credit granted to those who have completed or are concurrently enrolled in PHYSICS 120, 135, 140, 160, 235, 240, or 260.

## PHYSICS 116. From Quarks to Cosmos

(3). (NS). (BS). (QR/1). May not be repeated for credit.

## PHYSICS 119 / CHEM 108 / EARTH 130. The Physical World

High-school algebra. (4). (NS). (BS). (QR/2). May not be repeated for credit.

## PHYSICS 120. Foundations of Physics

(4 in the half-term). May not be repeated for credit. No credit granted to those who have completed or are enrolled in Physics 115 - Principles of Physics.

## PHYSICS 121. Physics for Architects

High school algebra and trigonometry. (5). (NS). (BS). May not be repeated for credit.

## PHYSICS 123. AP Physics Mechanics and Sound

(5). May not be repeated for credit. No credit granted for those who have completed or are enrolled in PHYSICS 125, 135 or 140.

## PHYSICS 124. AP Physics Electricity and Light

(5). May not be repeated for credit. No credit granted to those who have completed or are enrolled in Physics 126, 235 or 240.

## PHYSICS 135. Physics for the Life Sciences I

MATH 115, 120, 185, or 295. Students should elect PHYSICS 136 concurrently. (4). (NS). (BS). (QR/1). May
not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 125, 140 or 160.

## PHYSICS 136. Physics for the Life Sciences Laboratory I

Concurrent election with PHYSICS 135 is strongly recommended. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 127, 141 or 161.

## PHYSICS 140. General Physics I

COREQUISITE: PHYSICS 141 (LAB). (Prerequisites enforced at registration.) MATH 115, 120, 185 or 295. (4). (NS). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 125, 135, 139 or 160.

## PHYSICS 141. Elementary Laboratory I

Concurrent election with PHYSICS 140 or 160 is strongly recommended. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 127, 136 or 161.

## PHYSICS 145. General Physics

MATH 115 or MATH 175 or MATH 185 or MATH 295, completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) PHYSICS 145 and 141 are normally elected concurrently. (3). (NS). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 125, 140, or 160.

## PHYSICS 160. Honors Physics I

MATH 115, 120, 185 or 295. Students should elect PHYSICS 161 or 141 concurrently. (4). (NS). (BS).
(QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 125, 135 or 140.

## PHYSICS 161. Honors Introductory Mechanics Lab

Concurrent election with PHYSICS 160 strongly recommended. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 127, 136 or 141.

PHYSICS 169. The Physical Universe: An Introduction to Modern Physics, Astrophysics, and Cosmology High school mathematics. (3). (NS). (BS). (QR/1). May not be repeated for credit. No credit granted for students who are enrolled in or have completed PHYSICS 112.

## PHYSICS 210. Energy for our Future

(3). (NS). (BS). May not be repeated for credit.

## PHYSICS 235. Physics for the Life Sciences II

PHYSICS 135; and MATH 115, 120 185, or 295. Students should elect PHYSICS 236 concurrently. (4). (NS).
(BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 126, 240 or 260.

## PHYSICS 236. Physics for the Life Sciences Laboratory II

Concurrent election with PHYSICS 235 is strongly recommended. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 128, 241 or 261.

## PHYSICS 240. General Physics II

PHYSICS 140 or 160; and MATH 116, 121, 156, 186, or 296. Students should elect PHYSICS 241
concurrently. (4). (NS). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 126, 235, 239 or 260.

## PHYSICS 241. Elementary Laboratory II

Concurrent election with PHYSICS 240 or 260 is strongly recommended. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 128, 236, or 261. F, W, Sp.

## PHYSICS 260. Honors Physics II

PHYSICS 140 or 160; and MATH 116, 121, 156, 186 or 296. Students should elect PHYSICS 261 or 241
concurrently. (4). (NS). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 126, 235 or 240.

## PHYSICS 261. Honors Electricity and Magnetism Lab

Concurrent election with PHYSICS 260 strongly recommended. (1). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 128, 236 or 241

## PHYSICS 288. Physics of Music

(3). (NS). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 489. No previous expertise in either physics or music is required.

## PHYSICS 290 / BIOPHYS 290. Physics of the Body and Mind

PHYSICS 125 or 135 or 140 or 160. (Prerequisites enforced at registration.) MATH 115 or equivalent AP credits. (3). (NS). (BS). (QR/2). May not be repeated for credit.

## PHYSICS 333. PHYSICS 140 Tutor

Consent of instructor required. (1-3). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

## PHYSICS 334. PHYSICS 240 Tutor

Consent of instructor required. (1-3). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

## PHYSICS 340. Waves, Heat, and Light

One of: PHYSICS 235 or 240 or 260; and one of: MATH 215 or 255 or 285 or 295. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 341. Waves, Heat, and Light Lab

One of: PHYSICS 235 or 240 or 260. (Prerequisites enforced at registration.) Concurrent election of PHYSICS 340 is strongly recommended. (2). (BS). May not be repeated for credit.

## PHYSICS 351. Methods of Theoretical Physics I

One of: MATH 215 or 255 or 285 or 295; and one of: MATH 216 or 256 or 286 or 296 or 316; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 360. Honors Physics III

One of: PHYSICS 235 or 240 or 260; and one of: MATH 215 or 255, or 285 or 295. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

PHYSICS 365 / HONORS 365 / SI 365. Cyberscience: Computational Science and the Rise of the Fourth Paradigm
Computing language course (e.g., EECS 183, 280, ENGR 101), Introductory statistics (e.g., Stats 250). (3). (NS). (BS). (QR/2). May not be repeated for credit.

## PHYSICS 370 / BIOPHYS 370 / CHEM 370. Physical and Chemical Principles Behind Biology and Medicine

MATH 215; and PHYSICS 235 or 240. (Prerequisites enforced at registration.) CHEM 130 or placement in 210. (3). (NS). (BS). May not be repeated for credit. No credit granted to students who have completed or are enrolled in CHEM 260 or PHYSICS 390. F, W.

## PHYSICS 390. Introduction to Modern Physics

One of: MATH 216 or 256 or 286 or 296 or 316 COREQUISITE: PHYSICS 391. (Prerequisites enforced at registration.) PHYSICS 340. (3). (BS). May not be repeated for credit.

PHYSICS 391. Introduction to Modern Physics Lab
PHYSICS 340 or PHYSICS 360. Concurrent election of PHYSICS 390 is strongly recommended. (2). (NS). (BS). May not be repeated for credit.

## PHYSICS 401. Intermediate Mechanics

PHYSICS 340 or 360 and one of: MATH 216, 256, 286, 296 or 316; or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). (QR/1). May not be repeated for credit.

## PHYSICS 402. Optics

PHYSICS 340 or 360, and one of: MATH 216, 256, 286, 296 or 316: or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. A student can receive credit for only one of EECS 334 or PHYSICS 402.

PHYSICS 405. Intermediate Electricity and Magnetism
PHYSICS 340 or 360, and one of: MATH 216, 256, 286, 296 or 316; or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 406. Statistical and Thermal Physics

PHYSICS 390 or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 411. Introduction to Computational Physics

PHYSICS 401 and [MATH 216 or 256 or 286 or 296 or 316]. Some familiarity with a computer language. (3). (BS). May not be repeated for credit.

PHYSICS 413 / CMPLXSYS 541. Introduction to Nonlinear Dynamics and the Physics of Complexity PHYSICS 401 or Graduate Standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## PHYSICS 415. Special Problems for Undergraduates

Consent of instructor required. (1-6). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## PHYSICS 417 / BIOPHYS 417 / CHEM 417. Dynamical Processes in Biophysics

MATH 216 or 256 or 286 or 296 or 316; and BIOPHYS 370 or PHYSICS 340 or PHYSICS 360 or PHYSICS 370 or CHEM 463 or CHEM 370. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 420. Physics for Educators

School of Education concentrators. (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PHYSICS 106. W.

## PHYSICS 433 / BIOPHYS 433. Biocomplexity

BIOPHYS 417 or CHEM 417 or PHYSICS 417, or PHYSICS 406; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## PHYSICS 435. Gravitational Physics

PHYSICS 390 and 401; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## PHYSICS 438. Electromagnetic Radiation

PHYSICS 405. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 441. Advanced Laboratory I

PHYSICS 390 and any 400-level Physics course. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. F.

## PHYSICS 442. Advanced Laboratory II

PHYSICS 441. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## PHYSICS 450 / BIOPHYS 450. Laboratory Techniques in Biophysics

BIOPHYS 370 or CHEM 370 or PHYSICS 370; or PHYSICS 390; or CHEM 452 or BIOLCHEM 452; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## PHYSICS 452. Methods of Theoretical Physics II

PHYSICS 351. (3). (BS). May not be repeated for credit.

## PHYSICS 453. Quantum Mechanics

PHYSICS 390; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PHYSICS 457. Particle Physics and Cosmology

PHYSICS 453; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## PHYSICS 460. Quantum Mechanics II

PHYSICS 453; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## PHYSICS 463. Introduction to Solid State Physics

PHYSICS 453; or graduate standing. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. W.

## PHYSICS 465. Senior Seminar

Junior and Senior Physics concentrators. (Prerequisites enforced at registration.) (2). (BS). May not be repeated for credit.

## PHYSICS 481 / PUBPOL 481. Science, Technology and Public Policy

Junior standing; introductory physics courses preferred. (3). May not be repeated for credit. May not be included in a concentration plan in Physics.

## PHYSICS 496. Senior Thesis, I

Consent of instructor required. Permission of departmental concentration advisor. (2-3). (BS). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of PHYSICS 497, the final grade is posted for both term's elections. F, W, Sp/Su, Sp, Su.

## PHYSICS 497. Senior Thesis II

Consent of instructor required. Permission of departmental concentration advisor. (2-3). (BS). (INDEPENDENT). May not be repeated for credit. F, W, Sp/Su, Sp, Su.

## PHYSICS 498. Introduction to Research for Honors Students

Consent of instructor required. Permission of departmental concentration advisor. (2-3). (BS). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of PHYSICS 499, the final grade is posted for both term's elections. $F, W, S p / S u, S p, S u$.

## PHYSICS 499. Introduction to Research for Honors Students

Consent of instructor required. Permission of Physics concentration advisor. (2-3). (BS). (INDEPENDENT). May not be repeated for credit. F, W, Sp/Su, Sp, Su.

## Courses in LSA Political Science

Political Science (POLSCI)
POLSCI 101. Introduction to Political Theory
Primarily for first and second year students. (4). (SS). May not be repeated for credit. F, W, Sp.

## POLSCI 111. Introduction to American Politics

Primarily for first and second year students. (4). (SS). May not be repeated for credit.

## POLSCI 140. Introduction to Comparative Politics

Primarily for first- and second-year students. (4). (SS). May not be repeated for credit. F, W.

## POLSCI 160. Introduction to World Politics

(4). (SS). May not be repeated for credit. F, W, Su.

## POLSCI 190. First-Year Seminar in Political Science

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

## POLSCI 195. Special Topics Mini Course

Consent of department required. (1-2). May be elected twice for credit.

## POLSCI 230. Honors Core in Political Science

Consent of department required. (4). (SS). May be elected twice for credit. May be elected more than once in the same term.

## POLSCI 240. Honors Core Writing in Political Science

Consent of department required. (4). (SS). (FYWR). May be elected twice for credit. May be elected more than once in the same term.

## POLSCI 299. Directed Undergraduate Internship in Political Science

Consent of department required. Declared political science concentrator. (1). (EXPERIENTIAL). May be elected twice for credit. Offered mandatory credit/no credit.

## POLSCI 300. Quantitative Empirical Methods of Political Science

One Political Science course. (4). (SS). (QR/1). May not be repeated for credit.

## POLSCI 301. Development of Political Thought: To Modern Period

(3). (SS). May not be repeated for credit.

POLSCI 302. Development of Political Thought: Modern and Recent
POLSCI 101. (3). May not be repeated for credit.
POLSCI 306. American Political Thought: Early
POLSCI 101 or upperclass standing. (3-4; 3 in the half-term). (SS). May not be repeated for credit.
POLSCI 307. American Political Thought: Late
POLSCI 101 or 111. (3-4). (SS). May be elected twice for credit. May be elected more than once in the same term.

POLSCI 309 / ENVIRON 307. Theoretical Perspectives on Environmental Change
POLSCI 101. (3-4). (SS). May be elected twice for credit.
POLSCI 311. American Political Processes
POLSCI 111 or upperclass standing. (3). (SS). May not be repeated for credit.
POLSCI 312. Persuasive Politics: Voters, Campaigns and Communication Strategies
(4). (SS). May not be repeated for credit.

POLSCI 315. Media and Public Opinion
POLSCI 111 or upperclass standing. (4; 3 in the half-term). (SS). May not be repeated for credit.
POLSCI 316 / HISTORY 235. History of Law and Social Justice
(3-4; 3 in the half-term). (SS). May not be repeated for credit.

## POLSCI 317. Courts, Politics and Society

One course in Political Science. (3). May not be repeated for credit.

## POLSCI 318. American Constitutional Politics

POLSCI 111. (3). May not be repeated for credit.
POLSCI 319 / HISTORY 411. The Politics of Civil Liberties and Civil Rights
POLSCI 111. (4; 3 in the half-term). May not be repeated for credit.

## POLSCI 320. The American Chief Executive

POLSCI 111 or upperclass standing. (Prerequisites enforced at registration.) (4; 3 in the half-term). (SS).
May not be repeated for credit.

## POLSCI 324 / AAS 418. Black Americans and the Political System

One course in Political Science and AAS 201. (3). May not be repeated for credit.

## POLSCI 326. American State Government

POLSCI 111 or upperclass standing. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

## POLSCI 327. Politics of the Metropolis

POLSCI 111 or upperclass standing. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

## POLSCI 329 / COMM 329. Mass Media and Political Behavior

(4). (SS). May not be repeated for credit.

## POLSCI 330. Psychological Perspectives on Politics

POLSCI 111 or upperclass standing. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

POLSCI 331 / ENVIRON 345 / SOC 380. Environmental Public Opinion Analysis
(3). (SS). May not be repeated for credit.

## POLSCI 336. Energy Politics

One course in Political Science. (3). (SS). May not be repeated for credit.

## POLSCI 337. State and Market in Contemporary China

(4). May not be repeated for credit.

POLSCI 338. The Constitution Outside of the Courts
(3). May not be repeated for credit.

POLSCI 339 / ASIAN 428. China's Evolution Under Communism
Upperclass standing. (4; 3 in the half-term). May not be repeated for credit.

## POLSCI 340. Governments and Politics in Western Europe

POLSCI 140 or upperclass standing. (4). (SS). May not be repeated for credit.

## POLSCI 341. Comparative Politics of Developed Democracies

POLSCI 140 or upperclass standing. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

## POLSCI 342. Eastern Europe: Revolution, Reaction, and Reform

POLSCI 140 or upperclass standing. (3). (SS). May not be repeated for credit.

## POLSCI 343. Political Economy of Developed Democracies

(3). May not be repeated for credit.

POLSCI 345 / ASIAN 387 / RCSSCI 387. Hate in Asia: Cultures of Conflict and Reconciliation At least one course on the history, politics, or culture of Asia. (4). (ID). May not be repeated for credit.

## POLSCI 347. Politics and Society in Latin America

POLSCI 140 or upperclass standing. (3). (SS). May not be repeated for credit.

## POLSCI 348. Political Economy of Development

(3). May not be repeated for credit.

POLSCI 350 / JUDAIC 451. The Politics and Culture of Modern East European Jewry
A course in East European and/or Jewish history, and Comparative Politics is recommended. (3). May not be repeated for credit.

## POLSCI 351. Israeli Society and Politics

One course in Political Science or upperclass standing. (3). (SS). May not be repeated for credit.

## POLSCI 353. The Arab-Israeli Conflict

(4). May not be repeated for credit.

## POLSCI 354 / SEAS 354. Governments and Politics of Southeast Asia

One course in Political Science or upperclass standing. (3). (SS). May not be repeated for credit.

## POLSCI 355. Democracy and Development in Africa

(3). May not be repeated for credit.

## POLSCI 356. Government and Politics of Japan

POLSCI 140 or upperclass standing. (3). (SS). May not be repeated for credit.

## POLSCI 359 / AAS 359. African Politics

AAS 200. (3-4; 3 in the half-term). May not be repeated for credit.
POLSCI 362 / HISTORY 312. History of European Integration
(4; 3 in the half-term). (ID). May not be repeated for credit.

## POLSCI 364. Public International Law

One course in Political Science. (3). May not be repeated for credit.

## POLSCI 368. Modern Warfare

POLSCI 160. (4). (SS). May not be repeated for credit.

## POLSCI 369. Politics of International Economic Relations

POLSCI 160. (Prerequisites enforced at registration.) (4; 3 in the half-term). (SS). May not be repeated for credit.

## POLSCI 371. The American Foreign Policy Process

One course in Political Science. (3). May not be repeated for credit.
POLSCI 380 / ENVIRON 312 / PUBPOL 312. Environmental Politics and Policy
(3). May not be repeated for credit.

## POLSCI 381. Political Science Research Design

Political Science and PPE (Program in Philosophy, Politics and Economics) Majors. (Prerequisites enforced at registration.) (3). (SS). May not be repeated for credit.

## POLSCI 383. Political Science Research Opportunity

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## POLSCI 384. Directed Studies

Consent of instructor required. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.
May be elected more than once in the same term.

## POLSCI 385. Political Science Special Topics Mini Course

(1-2). May be elected twice for credit.

## POLSCI 386 / GERMAN 379 / SOC 379. Sports, Politics, and Society

One introductory course in sociology or political science. (3). (SS). May not be repeated for credit. No credit for those who have completed SOC 212/GERMAN 212.

## POLSCI 387. Comparative Analysis of Government Institutions

Two courses in political science or junior standing. (3-4). (SS). (QR/2). May not be repeated for credit.

## POLSCI 388 / ASIAN 389. Asian Business Culture

At least one Asian culture course on history, economics, politics, or popular culture. (4). (ID). May not be repeated for credit.

## POLSCI 389. Topics in Contemporary Political Science

One course in Political Science. (3-4). (SS). May be repeated for a maximum of 10 credits. May be elected more than once in the same term.

POLSCI 391 / CMPLXSYS 391. Introduction to Modeling Political Processes
One course in Political Science. (4). (SS). (QR/1). May not be repeated for credit.
POLSCI 392. Michigan in Washington: Preparatory Seminar
Consent of department required. Admission to Michigan in Washington Program. (2). May be elected twice for credit. Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. Offered mandatory credit/no credit.

POLSCI 393. Inside Washington, D.C.
Consent of instructor required. (1). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

POLSCI 395 / HISTORY 332 / REEES 395 / SLAVIC 395 / SOC 392. Russia and the Soviet Union: Reform, Revolution, and the Socialist Experiment
(4; 3 in the half-term). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor. F.

## POLSCI 396 / REEES 396 / SLAVIC 396 / SOC 393. East Central Europe: Nationalism, Socialism,

 Democracy(3-4). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor.
POLSCI 398. Michigan In Washington: Internship
Consent of department required. (2). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

## POLSCI 399. Advanced Internship in Political Science

Consent of instructor required. Political Science majors who have completed at least two-upper-level POLSCI courses. (3). (EXPERIENTIAL). May be elected twice for credit.

POLSCI 401 / WOMENSTD 422. Feminist Political Theory
Junior standing. (3). May not be repeated for credit.
POLSCI 402. Liberalism and Its Critics
POLSCI 101 or 302. (3). May not be repeated for credit.

## POLSCI 403 / CLCIV 403. Greek Political Thought

POLSCI 101 or 302. (3). May not be repeated for credit.

## POLSCI 406. Democratic Theory

POLSCI 101 or 302. (3). May not be repeated for credit.

## POLSCI 407. Marxism and 20th-Century Radicalism

POLSCI 101 or 302. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## POLSCI 409. Twentieth Century Political Thought

POLSCI 101, 302 or an equivalent. (3). May not be repeated for credit.

## POLSCI 410. Washington Experience Seminar

Consent of instructor required. (2). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

## POLSCI 411. Michigan In Washington: National Capital Research Project

Consent of department required. (4). (INDEPENDENT). May not be repeated for credit.

## POLSCI 432. Law and Public Policy

Two courses in Political Science, including POLSCI 111 or its equivalent. (4; 3 in the half-term). May not be repeated for credit.

## POLSCI 462. Strategic Interaction in World Politics

POLSCI 160 and an additional course in Political Science. (3). May not be repeated for credit.

## POLSCI 464. Advanced Public International Law

POLSCI 364. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## POLSCI 485. Election Forensics

Political Science major. (3). (QR/2). May not be repeated for credit.

## POLSCI 486. Public Opinion, Political Participation, and Pressure Groups

One course in Political Science. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## POLSCI 489. Advanced Topics in Contemporary Political Science

Seniors only. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## POLSCI 490. Game Theory and Formal Models

(4). May not be repeated for credit.

## POLSCI 491. Directed Studies

Consent of instructor required. Two courses in Political Science and permission of instructor and the Director of Undergraduate Studies. (1-6). (INDEPENDENT). May be repeated for a maximum of 8 credits. POLSCI 491 and 492 may be elected for a combined maximum of eight credits. No more than four credits of directed study credit may be elected as part of a concentration program in Political Science. F.

## POLSCI 492. Directed Studies

Consent of instructor required. Two courses in Political Science and permission of instructor and the Director of Undergraduate Studies. (1-6). (INDEPENDENT). May be repeated for a maximum of 8 credits. POLSCI 491 and 492 may be elected for a combined maximum of eight credits. No more than four credits of directed study credit may be elected as part of a concentration program in Political Science. W.

## POLSCI 493. Senior Honors Proseminar

Open only to senior Honors concentrators. (4). (INDEPENDENT). May not be repeated for credit. No more than four Honors credits may be elected as part of a concentration plan in Political Science. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term (POLSCI 494), the final grade is posted for both term's elections. F.

## POLSCI 494. Senior Honors Proseminar

Open only to senior Honors concentrators. (4). (INDEPENDENT). May not be repeated for credit. No more than four Honors credits may be elected as part of a concentration plan in Political Science. W.

## POLSCI 495. Undergraduate Seminar in Political Theory

One of the following: POLSCI 101, 301, 302, 307, 309; or PHIL 366; or GTBOOKS 191 or 192. (Prerequisites enforced at registration.) (3). May be elected twice for credit. May be elected more than once in the same term.

## POLSCI 496. Undergraduate Seminar in American Government and Politics

Senior standing; primarily for seniors concentrating in Political Science. (3). May be elected twice for credit. May be elected more than once in the same term.

## POLSCI 497. Undergraduate Seminar in Comparative and Foreign Government

Senior standing; primarily for seniors concentrating in Political Science. (3). May be elected twice for credit. May be elected more than once in the same term.

## POLSCI 498. Undergraduate Seminar in International Politics

Senior standing; primarily for seniors concentrating in Political Science. (3). May be elected twice for credit. May be elected more than once in the same term.

## POLSCI 499. Quantitative Methods of Political Analysis

(3). May not be repeated for credit.

## POLSCI 514. The Use of Social Science Computer Programs

Consent of instructor required. POLSCI 599/equivalent or permission of instructor. (2). May not be repeated for credit.

## Courses in LSA Psychology

Psychology (PSYCH)

## PSYCH 111. Introduction to Psychology

(4). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PSYCH 112, 114, or 115. PSYCH 111 may not be included in a major in Psychology or a major in Biopsychology, Cognition, and Neuroscience. Students in PSYCH 111 are required to spend five hours outside of class participating as subjects in research projects. F, W, Sp, Su.

## PSYCH 112. Introduction to Psychology as a Natural Science

(4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PSYCH 111, 114, 115, or 116. PSYCH 112 may not be included in a major in Psychology or a major in Biopsychology, Cognition, and Neuroscience. Students in PSYCH 112 are required to spend five hours outside of class participating as subjects in research projects.

## PSYCH 114. Honors Introduction to Psychology

LSA Honors Students. (Prerequisites enforced at registration.) Non-honors students must obtain permission of instructor. (4). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PSYCH 111, 112, or 115. May not be included in a major in Psychology or a major in Biopsychology, Cognition, and Neuroscience. Students in PSYCH 114 are required to spend three hours outside of class participating as subjects in research projects.

## PSYCH 119 / WOMENSTD 119. Gender, Sex, and Sexuality in Science and Medicine

First year students only. (Prerequisites enforced at registration.) (3). (NS). May not be repeated for credit.

## PSYCH 120. First-Year Seminar in Psychology as a Social Science

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit. Does not count toward the requirements for the Psychology major nor the major in Biopsychology, Cognition, and Neuroscience.

## PSYCH 121. First-Year Seminar in Psychology as a Natural Science

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit. Does not count toward the requirements for the Psychology major nor the major in Biopsychology, Cognition, and Neuroscience.

## PSYCH 122 / SOC 122 / UC 122. Intergroup Dialogues

Consent of instructor required. (3). (R\&E). May be repeated for a maximum of 6 credits. May not be used as a prerequisite for, or included in a major in Psychology. Does not count toward the requirements for the major in Biopsychology, Cognition, and Neuroscience.

## PSYCH 200. Independent Study in Psychological Issues

Consent of instructor required. One of the following: PSYCH 111, 112, 114, 115, 120, or 121. (1-4). (INDEPENDENT). May be repeated for a maximum of 4 credits.

## PSYCH 211. Project Outreach

Prior or concurrent enrollment in an introductory Psychology course. (3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. This course may
only be repeated if a different section is selected. All sections of Outreach count as an experiential lab for the Psychology major; they do not count as a lab for the Biopsychology, Cognition, and Neuroscience major.

## PSYCH 218. Sophomore Seminar in Psychology as a Social Science

An introductory course in psychology or similar social science. (3-4). (SS). May not be repeated for credit. Does not count toward the requirements for the Psychology major.

PSYCH 220. Introduction to Biopsychology, for Non-BCN or Non-Neuroscience majors (4). (NS). (BS). May not be repeated for credit.

PSYCH 225 / WOMENSTD 225. Psychology of Human Sexuality
(3). May not be repeated for credit. Does not count as a breadth course for Psychology or BCN majors.

## PSYCH 226. Undergraduate Research in Psychology

Consent of instructor required. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. Credit is granted for a combined total of 8 credits in ay UROP research course.

## PSYCH 230. Introduction to Behavioral Neuroscience

(PSYCH 111 or 112 or 114 or 115) or (BIOLOGY 162 or 163 or 171 or 172 or 195). (Prerequisites enforced at registration.) Basic familiarity with biology and chemistry. (4). (NS). (BS). May not be repeated for credit.

## PSYCH 240. Introduction to Cognitive Psychology

PSYCH 111 or 112 or 114 or 115 or 116. (Prerequisites enforced at registration.) (4). (NS). (BS). May not be repeated for credit.

## PSYCH 242 / LING 209. Language and Human Mind

Not available to students who have completed LING 103 (courseID 020035), Topic: Language and Mind,(Topic \#6). (Prerequisites enforced at registration.) (4; 3 in the half-term). (ID). May not be repeated for credit. Does not count toward the requirements for the Psychology major.

PSYCH 250. Introduction to Developmental Psychology
One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

## PSYCH 260. Introduction to Organizational Psychology

One of: PSYCH 111 or 112 or 114 or 115 or 116. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

## PSYCH 270. Introduction to Psychopathology

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

## PSYCH 280. Introduction to Social Psychology

One of: PSYCH 111 or 112 or 114 or 115 or 116. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

PSYCH 290. Introduction to the Psychology of Personality
One of: PSYCH 111 or 112 or 114 or 115 or 116. (Prerequisites enforced at registration.) (4). (SS). May not be repeated for credit.

## PSYCH 291 / WOMENSTD 291. Introduction to the Psychology of Women and Gender

PSYCH 111, 112, 114, 115 or 116. (Prerequisites enforced at registration.) (4). (SS). (R\&E). May not be repeated for credit.

PSYCH 296 / HISTORY 296 / WOMENSTD 296. Gender, Sex Differences, and Addiction: Girls Gone Wild (3-4; 3 in the half-term). (SS). May not be repeated for credit.

## PSYCH 302. Research Methods in Cognitive Neuroscience

STATS 250 and [PSYCH 220, 230, or 240]. (Prerequisites enforced at registration.) (3). (BS). May be repeated for a maximum of 6 credits.

## PSYCH 303. Research Methods in Psychology

One of STATS 250 or 425 or MATH 425; and one of PSYCH 230, 240, 250, 260, 270, 280, or 290.
(Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PSYCH 304. Practicum in Teaching and Leading Groups

Consent of instructor required. One of the following: PSYCH 111, 112, 114, or 115 and permission of instructor. (2-4). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. A maximum of 12 credits may be elected through PSYCH 304, 305, 306, 307, and 308. A total of six credits of Psychology letter-graded experiential courses may be counted for the Psychology concentration.

## PSYCH 305. Practicum in Psychology

One of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. A maximum of 12 credits may be elected through PSYCH 304, 305, 306, 307, and 308. A total of six credits of PSYCH letter-graded experiential courses may be counted for the Psychology concentration. PSYCH 305 must be taken for at least three credits to count as an experiential lab in the Psychology concentration.

## PSYCH 306. Project Outreach Group Leading

Consent of instructor required. PSYCH 211 and one of the following: PSYCH 111, 112, 114, or 115 and permission of instructor. (3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. A maximum of 12 credits may be elected through PSYCH 304, 305, 306, 307, and 308. A total of six credits of Psychology letter-graded experiential courses may be counted for the Psychology concentration.

## PSYCH 307. Directed Experiences with Children

Consent of instructor required. One of the following: PSYCH 111, 112, 114, or 115 and permission of instructor. (3-4). (EXPERIENTIAL). May be repeated for a maximum of 7 credits. A maximum of 12 credits may be elected through PSYCH 304, 305, 306, 307, and 308. A total of six credits of Psychology letter-graded experiential courses may be counted for the Psychology concentration. F, W, Sp/Su, Sp, Su.

## PSYCH 308. Peer Advising Practicum in Psychology

Consent of instructor required. Admission by application. At least junior standing in the Psychology or Brain, Behavior and Cognitive Sciences concentration. (2-3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. A maximum of 12 credits may be elected through PSYCH 304, 305,306, 307, and
308. A total of six credits of Psychology letter-graded experiential courses may be counted for the Psychology concentration.

PSYCH 310 / SOC 320 / UC 320. Processes of Intergroup Dialogues Facilitation
Admission by application. Previous participation in UC 122/PSYCH 122/SOC 122 strongly encouraged. (3). (R\&E). May not be repeated for credit. May be used as an experiential lab in the Psychology concentration. A total of six credits of Psychology letter-graded experiential courses may be counted for the Psychology concentration.

PSYCH 311 / SOC 321 / UC 321. Practicum in Facilitating Intergroup Dialogues
PSYCH 310/SOC 320 and permission of instructor. (4). (EXPERIENTIAL). May not be repeated for credit. A total of six credits of Psychology letter-graded experiential courses may be counted for the Psychology concentration.

PSYCH 312 / SOC 375 / UC 375. Intergroup Conflict and Coexistence: Religion, Ethnicity and Culture (3). May not be repeated for credit.

## PSYCH 316 / AAS 331. The World of the Black Child

One course in Psychology or Afro-American and African Studies. (3). May not be repeated for credit.

## PSYCH 317 / AMCULT 306. Community Research

One of the following: PSYCH 111, 112, 114, or 115. (4). May not be repeated for credit. PSYCH 317 and 318 may be used as an experiential lab in the Psychology concentration. A total of six credits of Psychology letter-graded Community-based courses may be counted towards the psychology concentration.

## PSYCH 318 / COMM 318. Media and Violence

COMM 281 strongly recommended. (4). May not be repeated for credit. No credit granted to students who have completed COMM/PSYCH 481, Media \& Violence (Crse ID \#019987).

## PSYCH 319 / AMCULT 319. Empowering Families and Communities

One of the following: PSYCH 111, 112, 114, or 115. (4). May not be repeated for credit. A total of six credits of Psychology letter-graded Community-based courses may be counted towards the psychology concentration. F.

PSYCH 322. Field Practicum in Research Techniques for Psychology as a Natural Science
Consent of instructor required. One of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290, and permission of instructor. (1-4). (BS). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. Credit is granted for a combined total of six credits of PSYCH 322, 323, 326, 327. Credits may not be counted in the Psychology or BCN major. Offered mandatory credit/no credit.

PSYCH 323. Field Practicum in Research Techniques for Psychology as a Social Science
Consent of instructor required. One of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290, and permission of instructor. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. Credit is granted for a combined total of six credits of PSYCH 322, 323, 326, 327. Credits may not be counted in a concentration plan in Psychology. Offered mandatory credit/no credit.

PSYCH 324 / SOC 324 / UC 324. Advanced Practicum in Intergroup Relations
Consent of instructor required. UC 320/PSYCH 310/SOC 320. (1-4). (EXPERIENTIAL). May be repeated for
a maximum of 8 credits. A total of six credits of Psychology letter-graded Research-based courses may be counted towards the Psychology concentration.

PSYCH 325 / AMCULT 321. Practicum in the Multicultural Community
One of the following: PSYCH 111, 112, 114, or 115. (1-4). (EXPERIENTIAL). May not be repeated for credit. A total of six credits of PSYCH letter-graded experiential courses may be counted for the Psychology major. PSYCH 325 must be taken for at least three credits to count as an experiential lab in the Psychology major. No more than 6 credits of directed readings/internships may be counted toward the American Culture major.

## PSYCH 326. Faculty Directed Early Research for Psychology as a Natural Science

Consent of instructor required. One of: PSYCH 230, 240, 250, 260, 270, 280, or 290 with at least a grade of C. (1-4). (BS). (INDEPENDENT). May be repeated for a maximum of 6 credits. May be repeated for a maximum of 6 credits. A student may elect a combined maximum of 6 credits of PSYCH 322, 323, 326 and 327. A total of six credits of Psychology letter-graded Research-based courses may be counted towards the Psychology concentration.

## PSYCH 327. Faculty Directed Early Research for Psychology as a Social Science

Consent of instructor required. One of: PSYCH 230, 240, 250, 260, 270, 280, or 290 with at least a grade of C. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits. May be repeated for a maximum of 6 credits. A student may elect a combined maximum of 6 credits of PSYCH 322, 323, 326 and 327. A total of six credits of Psychology letter-graded Research-based courses may be counted towards the Psychology concentration.

## PSYCH 328. Research Lab for Psychology as a Natural Science

Consent of instructor required. Concurrent research participation in a Psychology lab and one of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290, and permission of instructor. (1). (BS).
(EXPERIENTIAL). May be elected four times for credit.

## PSYCH 330. Topics in Biopsychology

PSYCH 230. (Prerequisites enforced at registration.) (3). (NS). (BS). May be elected twice for credit. May be elected more than once in the same term.

## PSYCH 331. Research Methods in Brain, Behavior, and Cognitive Science

Consent of instructor required. Admission by application. Completion of STATS 250 or STATS 425 or MATH 425 and PSYCH 230, 240, 335, or 345. (4). (BS). May not be repeated for credit. Satisfies a Psychology research-based laboratory requirement.

## PSYCH 332. Biological Rhythms and Behavior

One of the following: PSYCH 230, 240, 335 or 345. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

## PSYCH 333. Affective Neuroscience

PSYCH 230. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

## PSYCH 334. Neuroscience of Learning and Memory

PSYCH 230 or BIOLOGY 225. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

PSYCH 335. Introduction to Animal Behavior
One of the following: PSYCH 111, 112, 114, 115, BIOLOGY 162, 163, 171, 172, 195 or ANTHRBIO 161. (Prerequisites enforced at registration.) (4). (NS). (BS). May not be repeated for credit.

PSYCH 336. Drugs of Abuse, Brain and Behavior
PSYCH 230 or BIOLOGY 225. (Prerequisites enforced at registration.) (BIOLOGY 162 or 163 or 172 or 195) and a CHEM course. (3). (NS). (BS). May not be repeated for credit.

## PSYCH 337. Hormones and Behavior

PSYCH 230. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

## PSYCH 338 / ANTHRBIO 368. Primate Social Behavior I

(4). (NS). (BS). May not be repeated for credit. F.

## PSYCH 339. Biopsychology of Cooperation

PSYCH 230 or 335. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

## PSYCH 340. Topics in Cognition and Cognitive Neuroscience

PSYCH 240. (Prerequisites enforced at registration.) (3). (NS). (BS). May be elected twice for credit. May be elected more than once in the same term.

PSYCH 341. Advanced Laboratory in Cognitive Psychology
PSYCH 240 or 245 or 345; and STATS 250 or 425 or MATH 425. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit. Satisfies a Psychology research-based laboratory requirement.

PSYCH 343. Cognitive Neuroscience of Learning and Memory
PSYCH 230 or 240. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.
PSYCH 344 / ELI 351 / LING 351. Second Language Acquisition
LING 111 or 210. (3). (BS). May not be repeated for credit.
PSYCH 345. Introduction to Human Neuropsychology
One of the following: PSYCH 111, 112, 114, 115, or 116. (Prerequisites enforced at registration.) (4). (NS). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PSYCH 634.

## PSYCH 346. Learning and Memory

PSYCH 240 or 345. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

## PSYCH 347. Perception

PSYCH 230, 240 or 345. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

## PSYCH 349 / LING 347. Talking Minds

At least one of: LING 111 or 210, or PSYCH 111, 112, 114, or 115. (3). (BS). May not be repeated for credit.

PSYCH 351. Advanced Laboratory in Developmental Psychology
PSYCH 250; and one of: STATS 250 or 425 or MATH 425. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Satisfies a Psychology research-based laboratory requirement. F, W, Sp.

PSYCH 352 / LING 352. Development of Language and Thought
PSYCH 250. (3). (SS). May not be repeated for credit.
PSYCH 353. Social Development
PSYCH 250. (3). (SS). May not be repeated for credit.
PSYCH 355. Cognitive Development
PSYCH 250. (3). (NS). (BS). May not be repeated for credit.
PSYCH 356. Educational Psychology
PSYCH 250. (4). (SS). May not be repeated for credit.
PSYCH 358. Psychology of Adolescence
PSYCH 250. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.
PSYCH 359. Psychology of Aging
PSYCH 250. (3). (SS). May not be repeated for credit.
PSYCH 371. Advanced Laboratory in Psychopathology
STATS 250 or 425 or MATH 425; and one of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 270. (3). May not be repeated for credit.

PSYCH 381 / SOC 472. Advanced Laboratory in Social Psychology
STATS 250 or 425 or MATH 425; and one of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 280. (3). May not be repeated for credit. Satisfies a Psychology researchbased laboratory requirement. F, W, Su.

PSYCH 384 / ENVIRON 360. Behavior and Environment
(3). (SS). May not be repeated for credit.

PSYCH 385 / ENVIRON 361. The Psychology of Environmental Stewardship
(3). (SS). May not be repeated for credit.

PSYCH 391. Advanced Laboratory in Personality
One of STATS 250 (or 350) or 425 or MATH 425; and one of PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 290. (3). May not be repeated for credit. Satisfies a Psychology researchbased laboratory requirement.

PSYCH 393. Political Psychology
Introductory Psychology. A prior course or interest in History or Political Science is useful, though not required. (3). (SS). May not be repeated for credit.

PSYCH 394 / WOMENSTD 394. Sex, Sexuality, and Public Policy
PSYCH 111 or any WOMENSTD course. (3). (SS). May not be repeated for credit.

## PSYCH 400. Special Problems in Psychology as a Natural Science

One of the following: PSYCH 111, 112, 114, or 115; and 230, or 240. (Prerequisites enforced at
registration.) (1-4). (BS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## PSYCH 401. Special Problems in Psychology as a Social Science

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) (1-4). May be repeated for a maximum of 12 credits. May be elected more than once in the same term. Only 6 credits of PSYCH 400, 401, 402 combined may be counted toward a concentration plan in Psychology, and a maximum of 12 credits may be counted toward graduation.

## PSYCH 402. Special Problems in Psychology

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) One of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290. (2-4). May be repeated for a maximum of 12 credits. Only 6 credits of PSYCH 400, 401, 402 combined may be counted toward a concentration plan in Psychology, and a maximum of 12 credits may be counted toward graduation.

## PSYCH 404. Field Practicum

Consent of instructor required. One of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290, and permission of instructor. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. Credit is granted for a combined total of fifteen credits elected from Experiential lab courses. May be used as an experiential lab in the Psychology major but not the major in Biopsychology, Cognition, and Neuroscience; credits may not be used toward either major. F, W, Sp/Su, Sp, Su. Offered mandatory credit/no credit.

## PSYCH 405. Field Practicum in a University Setting

Consent of instructor required. One of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290, and permission of instructor. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 4 credits. Credit is granted for a combined total of fifteen credits elected from Experiential lab courses. May be used as an experiential lab in the Psychology major but not the major in Biopsychology, Cognition, and Neuroscience; credits may not be used toward either major. F, W, Sp/Su, Sp, Su. Offered mandatory credit/no credit.

## PSYCH 408. Perception, Science, and Reality

One of the following: PSYCH 111, 112, 114, or 115. (3). (BS). May not be repeated for credit.
PSYCH 411 / SOC 471 / UC 471. IGR Senior Capstone: Social Justice in the Real World
Consent of instructor required. UC/SOC 320/321/PSYCH 310/311 or CASC Foundations and 2 related courses in social movements or activism. (3). May not be repeated for credit.

## PSYCH 413. A History of Modern Psychology

Psych or BBCS or Neuroscience concentrator. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## PSYCH 414 / WOMENSTD 452. Sexuality and Science

One of: PSYCH 111 or PSYCH 112 or any WOMENSTD course. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

PSYCH 418 / RELIGION 448. Psychology and Spiritual Development
One of the following: PSYCH 111, 112, 114, or 115, and permission of instructor. (3). May not be repeated for credit.

## PSYCH 420. Faculty Directed Advanced Tutorial Reading for Psychology as a Natural Science

 Consent of instructor required. Proposal required. Approval of the instructor and Psychology Committee on undergraduate Studies and PSYCH 230, 240, 335, or 345. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits.
## PSYCH 421. Faculty Directed Advanced Tutorial Reading for Psychology as a Social Science

Consent of instructor required. Proposal required. Approval of the instructor and Psychology Committee on Undergraduate Studies and one of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## PSYCH 422. Faculty Directed Advanced Research for Psychology as a Natural Science

Consent of instructor required. Proposal required. Approval of the instructor and Psychology Committee on undergraduate Studies. STATS 250 or STATS 280 or STATS 425; and one of the following: PSYCH 302, 331, 341, or 342. (1-4). (BS). (INDEPENDENT). May be repeated for a maximum of 6 credits. A total of six credits of Psychology letter-graded Research-based courses may be counted towards the Psychology concentration.

## PSYCH 423. Faculty Directed Advanced Research for Psychology as a Social Science

Consent of instructor required. Proposal required. Approval of the instructor and Psychology Committee on Undergraduate Studies. STATS 350 or 425 and one of the following: PSYCH 302, 303, 331, 341, 342, 351, 361, 371, 381, 383, or 391. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits. A total of six credits of Psychology letter-graded Research-based courses may be counted towards the Psychology concentration.

## PSYCH 424. Senior Honors Research I for Psychology as a Natural Science

Consent of instructor required. Acceptance into the Psychology Honors Program, STATS 350 or 425, and prior research experience. (2-4). (BS). May not be repeated for credit.

PSYCH 426. Senior Honors Research II for Psychology as a Natural Science
Consent of instructor required. Permission of the Psychology Honors Program Director, PSYCH 424 and good standing in the Psychology Honors Program. (2-4). (BS). May not be repeated for credit.

## PSYCH 428. Senior Thesis: Research in Psychology as a Natural Science

Consent of department required. Senior standing. STATS 350 and prior research experience. (2-4). (BS). (INDEPENDENT). May be repeated for a maximum of 8 credits. No credit granted to those who have completed or are enrolled in PSYCH 424, 425, 426, or 427.

## PSYCH 429. Senior Thesis: Research in Psychology as a Social Science

Consent of department required. Senior standing. STATS 350 and prior research experience. (2-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. No credit granted to those who have completed or are enrolled in PSYCH 424, 425, 426, or 427.

## PSYCH 430. Advanced Topics in Biopsychology

PSYCH 230 or PSYCH 335. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## PSYCH 431. Advanced Topics in Behavioral Neuroscience

PSYCH 230. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## PSYCH 432. Advanced Topics in Evolutionary and Comparative Psychology

PSYCH 335. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## PSYCH 433. Advanced Topics in Neuroscience

PSYCH 230 or BIOLOGY 225. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

## PSYCH 434. Neuroscience of Fear and Anxiety

PSYCH 230 \& one of the following: PSYCH 330, 332, 333, 334, 335, 336, 337, 338, or 339. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## PSYCH 437. Current Topics in Biopsychology

PSYCH 230, 240, or 345. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit.

## PSYCH 440. Advanced Topics in Cognitive Neuroscience

PSYCH 240. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit. May be elected more than once in the same term.

## PSYCH 441. Neuroscience and Society

PSYCH 240. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## PSYCH 442. Cognitive Neuroscience of Expertise

PSYCH 240. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## PSYCH 443. Creativity

PSYCH 240. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## PSYCH 445 / LING 447. Psychology of Language

PSYCH 240. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit.

## PSYCH 447. Current Topics in Cognition and Cognitive Neuroscience

PSYCH 230, 240, or 345. (Prerequisites enforced at registration.) (3). (BS). May be elected twice for credit.

## PSYCH 448. Mathematical Psychology

Sophomore standing or above and a minimum of two courses offered by either MATH (except MATH 105, 110,127 , and 128) or STATS (200 level and above). (Prerequisites enforced at registration.) (3). (BS). (QR/2). May not be repeated for credit.

## PSYCH 449. Decision Processes

One of STATS 250, or STATS 425 or MATH 425. (3). (BS). May not be repeated for credit.

## PSYCH 456. Human Infancy

PSYCH 250. (3). May not be repeated for credit.

## PSYCH 457. Current Topics in Developmental Psychology

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 250. (3). May be elected twice for credit.

## PSYCH 467. Current Topics in Organizational Psychology

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 260. (3). May be elected twice for credit.

PSYCH 474. Introduction to Behavior Therapy
PSYCH 270. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## PSYCH 476. Positive Psychology

Junior or Senior standing and one of the following: PSYCH 230, 240, 250, 260, 270, 280, or 290.
(Prerequisites enforced at registration.) (3). May not be repeated for credit.
PSYCH 477. Current Topics in Clinical Psychology
One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 270. (3). May be elected twice for credit.

## PSYCH 478. Clinical Psychology

PSYCH 111 or 112 or 114 or 115. (Prerequisites enforced at registration.) PSYCH 270. (3). May not be repeated for credit.

## PSYCH 487. Current Topics in Social Psychology

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 280. (3). May be elected four times for credit. May be elected more than once in the same term.

## PSYCH 488 / SOC 465 / WOMENSTD 465. Sociological Analysis of Deviance

One introductory course in sociology. (4; 3 in the half-term). May not be repeated for credit.

## PSYCH 494 / WOMENSTD 494. Adolescent Sexuality

(3). May not be repeated for credit. Rackham credit requires additional work.

## PSYCH 497. Current Topics in Personality Psychology

One of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 290. (3). May be elected twice for credit.

## PSYCH 530. Advanced Topics in Comparative and Evolutionary Psychology

PSYCH 335, 338/438. (3). (BS). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## PSYCH 531. Advanced Topics in Biopsychology

PSYCH 230. (3). (BS). May be repeated for credit. May be elected more than once in the same term.

PSYCH 532 / ANATOMY 541 / PHYSIOL 541. Mammalian Reproductive Physiology
MCDB 310 or 311, or BIOLCHEM 415. (4). (BS). May not be repeated for credit. W.
PSYCH 571. Advanced Topics in Clinical Psychology
Consent of instructor required. PSYCH 270 and permission of instructor. (3). May be repeated for credit. May be elected more than once in the same term.

## Courses in LSA Residential College

RC Fine Arts (RCARTS)
RCARTS 268. Introduction to Visual Thinking: Adventures in Creativity
(4). (CE). May not be repeated for credit.

RCARTS 285. Photography
(4). (CE). May not be repeated for credit.

RCARTS 286. Sculpture
(4). (CE). May not be repeated for credit.

## RCARTS 287. Printmaking

(4). (CE). May not be repeated for credit.

## RCARTS 288. Beginning Drawing

(4). (CE). May not be repeated for credit.

## RCARTS 289. Ceramics

(4). (CE). May not be repeated for credit.

## RCARTS 385. Interdisciplinary Photographic Applications

RCARTS 285. (4). (CE). May not be repeated for credit.
RCARTS 389. Ceramics Theory and Criticism
RCARTS 289. (4). (CE). May not be repeated for credit.
RC American Sign Language (RCASL)
RCASL 100. Introduction to Deaf Culture
(3). May not be repeated for credit.

RCASL 101. Elementary American Sign Language
Prior or concurrent enrollment in RCCORE 102 (or LING 140). (4). May not be repeated for credit.
RCASL 102. Elementary American Sign Language II
RCASL 101 (or RCCORE 103 or LING 150). (4). May not be repeated for credit.
RCASL 201. Intermediate American Sign Language
RCASL 102 (or RCCORE 104 or LING 151). (4). May not be repeated for credit.

## RCASL 202. Intermediate American Sign Language II

RCASL 201 (or RCCORE 203 or LING 250). (4). (Lang Req). May not be repeated for credit.
VRC Core Courses (RCCORE)

## RCCORE 100. First Year Seminar

SWC Writing Assessment. Only first-year students, including those with sophomore standing, may preregister for First-Year Seminars. All others need permission of instructor. (4). (FYWR). May not be repeated for credit.

## RCCORE 205. Independent Study

Consent of instructor required. Sophomore standing and permission of instructor. (1-8).
(INDEPENDENT). May be repeated for credit. Offered mandatory credit/no credit.

## RCCORE 206. Independent Study

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.

## RCCORE 209. Study Off-Campus

Consent of instructor required. Sophomore standing and permission of instructor. (1-4). (EXPERIENTIAL).
May be repeated for a maximum of 8 credits. Offered mandatory credit/no credit.

## RCCORE 301. Community-Based Internship - Semester in Detroit

Consent of department required. (4; 2 in the half-term). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

## RCCORE 302. Community-Based Internship Reflection Seminar

Consent of department required. (3; 1 in the half-term). May not be repeated for credit.

## RCCORE 305. Independent Study

Consent of instructor required. Junior standing and permission of instructor. (1-8). (INDEPENDENT). May be repeated for credit. Offered mandatory credit/no credit.

## RCCORE 306. Independent Study

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.

## RCCORE 307. RC Practicum in College Team Teaching

Consent of instructor required. Upperclass standing and permission of instructor. (1-4). (INDEPENDENT). May be repeated for credit.

## RCCORE 308. Directed Peer Tutoring

Consent of instructor required. (1-2). (EXPERIENTIAL). May be repeated for a maximum of 4 credits. Offered mandatory credit/no credit.

## RCCORE 309. Study Off-Campus

Consent of instructor required. Junior standing and permission of instructor. (1-16). (EXPERIENTIAL). May be repeated for credit. Offered mandatory credit/no credit.

## RCCORE 334. Special Topics

(1-4). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## RCCORE 405. Independent Study

Consent of instructor required. Senior standing. (1-8). (INDEPENDENT). May be repeated for credit. Offered mandatory credit/no credit.

## RCCORE 406. Independent Study

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.

## RCCORE 409. Study Off-Campus

Consent of instructor required. Senior standing. (1-16). (EXPERIENTIAL). May be repeated for credit. Offered mandatory credit/no credit.

## RCCORE 410. Senior Project

Consent of instructor required. (1-8). (INDEPENDENT). May be repeated for credit.

## RCCORE 489. Honors Independent Research

Permission of instructor. (1-4). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of RCCORE 490, the final grade is posted for both term's elections.

## RCCORE 490. Honors Thesis

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.
RC Humanities (RCHUMS)

## RCHUMS 217. Fathers and Sons

(3). (HU). May not be repeated for credit.

## RCHUMS 218. The Hero as Outsider, Outcast or Outlaw

(3). (HU). May not be repeated for credit.

## RCHUMS 220. Narration

Consent of instructor required. (4). (CE). May not be repeated for credit.
RCHUMS 221. The Writing of Poetry
Permission of instructor. (4). (CE). May not be repeated for credit.

## RCHUMS 235. Topics in World Dance

(3). (HU). May not be repeated for credit.

RCHUMS 236 / SAC 236. The Art of the Film
(4). (HU). May not be repeated for credit.

RCHUMS 237 / AMCULT 237 / HISTART 237. On the Margins of the Art World - Self-Taught Artists in the U.S.
(3). (ID). May not be repeated for credit.

RCHUMS 242. Creative Adaptation
Completion of the First-Year Writing Requirement. (4). (CE). May not be repeated for credit. W.
RCHUMS 249. Foundations of Music
(4). (CE). (EXPERIENTIAL). May not be repeated for credit.

## RCHUMS 250. Chamber Music

(1-2; 1 in the half-term). (CE). May be repeated for a maximum of 8 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## RCHUMS 251. Topics in Music

(3-4). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

RCHUMS 252. Topics in Musical Expression
(2-4). (CE). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

RCHUMS 253. Choral Ensemble
(1). (CE). May be repeated for credit. Offered mandatory credit/no credit.

RCHUMS 258. Afro-Cuban Drumming and Styles
(4). (CE). May not be repeated for credit.

RCHUMS 259. Musical Improvisation
(4). (CE). May be elected twice for credit.

RCHUMS 260 / DANCE 241. The Art of Dance: An Introduction to American and European Dance History, Aesthetics, and Criticism
(3). (HU). May not be repeated for credit.

RCHUMS 272 / HISTART 272. Modern Art: Avant-Garde to Contemporary
(4; 3 in the half-term). (HU). May not be repeated for credit.
RCHUMS 275. The Western Mind in Revolution: Six Interpretations of the Human Condition
(4). (HU). May not be repeated for credit.

RCHUMS 280 / ENGLISH 245 / THTREMUS 211. Introduction to Drama and Theatre
(3; 2 in the half-term). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RCHUMS 281.

RCHUMS 281. Introduction to Comedy and Tragedy
(4). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RCHUMS 280.

RCHUMS 282. Drama Interpretation I: Actor and Text
(4). (CE). May not be repeated for credit.

RCHUMS 283 / ASIAN 282 / SAC 282. Asia Goes Viral: Asian Pop Culture in the Age of Social Media (4). (ID). May not be repeated for credit.

RCHUMS 290. The Experience of Arts and Ideas in the Twentieth Century
(4). (HU). May not be repeated for credit.

RCHUMS 291. The Experience of Arts and Ideas in the Nineteenth Century
(4). (HU). May not be repeated for credit.

RCHUMS 301 / ENS 405. Beginning Indonesian Orchestra
(1). May be repeated for credit.

RCHUMS 302 / ENS 406. Beginning Indonesian Orchestra
ENS 405. (1). May be repeated for credit.
RCHUMS 303 / ENS 407. Indonesian Orchestra
One semester of gamelan. (1-2). May be repeated for credit.

RCHUMS 305. Cultural Confrontation in the Arts
Sophomore standing. (3). (HU). (R\&E). May not be repeated for credit.
RCHUMS 307 / GERMAN 309 / HONORS 309 / JAZZ 309. Imagination
(3). (HU). May not be repeated for credit.

RCHUMS 308 / ASIAN 308. Arts and Ideas of Modern South and Southeast Asia (3). (HU). (R\&E). May not be repeated for credit.

RCHUMS 309. Classical Sources of Modern Culture
(4). (HU). May not be repeated for credit.

RCHUMS 310 / MEMS 310. Pagans, Christians, Barbarians in Late Antiquity and the Early Middle Ages (3). (HU). May not be repeated for credit.

RCHUMS 312 / SLAVIC 312. Central European Cinema
A knowledge of Russian is not required. (3). (HU). (R\&E). May not be repeated for credit. Taught in English.

RCHUMS 313 / SAC 313 / SLAVIC 313. Russian and Ukrainian Cinema
(3). (HU). May not be repeated for credit. F.

RCHUMS 314 / MEMS 314. The Figure of Rome in Shakespeare and 16th-Century Painting (3). (HU). May not be repeated for credit.

RCHUMS 318. Critical Approaches to Literature
(4). (HU). May be repeated for credit.

## RCHUMS 320. Advanced Narration

Consent of instructor required. RCHUMS 220. (4). (CE). May not be repeated for credit.

## RCHUMS 321. Advanced Poetry Writing

Consent of instructor required. RCHUMS 221. (4). (CE). May not be repeated for credit.

## RCHUMS 325. Creative Writing Tutorial

Consent of instructor required. RCHUMS 320/221. (4). (CE). May be elected twice for credit.

## RCHUMS 326. Creative Writing Tutorial

Consent of instructor required. RCHUMS 325 and permission of instructor. (4). May be repeated for credit.

RCHUMS 334. Special Topics in the Humanities
(3-4). (HU). May be elected twice for credit. May be elected more than once in the same term.
RCHUMS 337 / ENVIRON 337. Children Under Fire: Narratives of Sustainability
(3). (HU). May not be repeated for credit.

RCHUMS 340. Four Interdisciplinary Studies in 19th- \& 20th-Century Intellectual History: Psychoanalysis, Mysticism, Nihilism and Marxism Junior/senior standing. (4). (HU). May not be repeated for credit.

RCHUMS 344 / HISTART 342. Reason and Passion in the 18th Century
Sophomore standing. (3). (HU). May not be repeated for credit.
RCHUMS 347 / RUSSIAN 347. Survey of Russian Literature
A knowledge of Russian is not required. No knowledge of Russian literature or history is presupposed. (4).
(HU). May not be repeated for credit.
RCHUMS 348 / RUSSIAN 348. Survey of Russian Literature
A knowledge of Russian is not required. (4). (HU). May not be repeated for credit.
RCHUMS 350. Creative Musicianship
(4). (CE). May not be repeated for credit.

RCHUMS 351. Creative Musicianship Lab
RCHUMS 350. (1-2). (CE). May be repeated for credit.
RCHUMS 352. Found Instruments-Building, Design and Performance
(4). (CE). May not be repeated for credit.

RCHUMS 353. Fundamentals of Electronic Music
(4). (CE). May not be repeated for credit.

RCHUMS 354 / AAS 354 / HONORS 354 / WOMENSTD 354. Race and Identity in Music (3). (HU). (R\&E). May not be repeated for credit.

RCHUMS 356. The Symphonic Century: Music and Revolution in the 19th Century (3). (HU). May not be repeated for credit.

RCHUMS 360. Existentialism
Junior/senior standing. (4). (HU). May not be repeated for credit.
RCHUMS 364. Nietzsche's Last Year: Final Vision and Mental Collapse
(3). (HU). May not be repeated for credit.

RCHUMS 365 / RELIGION 360. Experiences of Atheism: A History of Skepticism and Unbelief (3). (HU). May not be repeated for credit.

RCHUMS 371. Political Modernism: The Artist in the Nightmare of History: Picasso, Eliot, Orwell (3). (HU). May not be repeated for credit.

RCHUMS 372. The Subject in the Aftermath of Revolution
(3). (HU). May not be repeated for credit.

RCHUMS 373 / ASIAN 373. The Performing Arts in South and Southeast Asia
(3). (HU). May not be repeated for credit.

RCHUMS 374 / ASIAN 356. Contemporary Chinese Performance Culture
(3). (HU). May not be repeated for credit.

RCHUMS 381. Shakespeare on the Stage
RCHUMS 280. (4). (HU). May not be repeated for credit.

## RCHUMS 382. Moliere and His Theatre

RCHUMS 280. (4). (HU). May not be repeated for credit.
RCHUMS 383. Ibsen and Strindberg
Previous acting, Shakespeare course. (4). (HU). May not be repeated for credit.
RCHUMS 386 / MEMS 421. Medieval Drama
(4). May not be repeated for credit.

RCHUMS 387. Renaissance Drama
(4). May not be repeated for credit.

RCHUMS 389. The Modern Theatre
(4). (HU). May be elected three times for credit.

## RCHUMS 390. Special Period and Place Drama

Consent of instructor required. RCHUMS 280 and permission of instructor. (4). May be repeated for credit.

RCHUMS 425. Creative Writing Tutorial
Consent of instructor required. Restricted to RC Creative Writing concentrators. (4). May be elected twice for credit.

RCHUMS 426. Creative Writing Tutorial
Consent of instructor required. (4). May be repeated for credit.
RCHUMS 444. George Balanchine and the Transformation of American Dance
RCHUMS 260 or 235 or DANCE 220; Upperclass standing. (3). May not be repeated for credit.
RCHUMS 481. Play Production Seminar
Consent of instructor required. (4). May be elected three times for credit.
RCHUMS 482. Drama Interpretation II: Performance Workshop
RCHUMS 280 and either RCHUMS 282 or playwriting. (4). May not be repeated for credit.
RCHUMS 483. Environmental Theater Production Workshop in the Arboretum
Consent of instructor required. Previous acting, Shakespeare courses. (2-4 in the half-term). May be elected four times for credit.

## RCHUMS 485. Special Drama Topics

Consent of instructor required. Sophomore standing. (1-2). May be repeated for a maximum of 4 credits. May be elected more than once in the same term.

RC Interdivisional (RCIDIV)
RCIDIV 302. Advanced Issues in Science, Technology, Medicine, and Society
(3-4). (ID). May be elected twice for credit. May be elected more than once in the same term.
RCIDIV 305. The Literature of Environmental and Social Justice
(3). (ID). May not be repeated for credit.

## RCIDIV 316 / EEB 316 / ENVIRON 316. Introduction to Food Systems

Consent of instructor required. (3). (ID). May not be repeated for credit.

## RCIDIV 318 / EEB 318 / ENVIRON 318. Food, Land, and Society

One year of college-level Biology, Environmental Science or Environmental Studies; General Ecology recommended. (4). (ID). May not be repeated for credit. W.

## RCIDIV 350. Special Topics

(1). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## RCIDIV 351. Special Topics

(2). May be repeated for a maximum of 8 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## RCIDIV 390 / ENVIRON 390. Environmental Activism: Citizenship in a Republic

It is best to have at least one environmental course prior to this class. (3). (ID). May not be repeated for credit.

RC Languages (RCLANG)

## RCLANG 190. Intensive French I

(8). May not be repeated for credit. No credit granted to those who have completed or are enrolled in FRENCH 100, 101, 102, or 103. Pass/Fail with Narrative Evaluation.

## RCLANG 191. Intensive German I

(8). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 100, 101, 102, or 103. Conducted in German. Pass/Fail with Narrative Evaluation.

## RCLANG 193. Intensive Russian I

Consent of instructor required. (8). May not be repeated for credit. Credit is granted from only one among RUSSIAN 103, 111 123, or RCLANG 193. No credit is granted to those who are enrolled or have completed RUSSIAN 101 or 102. Pass/Fail with Narrative Evaluation.

## RCLANG 194. Intensive Spanish I

(8). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SPANISH 100, 101, 102, or 103. Pass/Fail with Narrative Evaluation.

## RCLANG 195. Intensive Latin I

(8). May not be repeated for credit. No credit granted to those who have completed or are enrolled in LATIN 195. Pass/Fail with Narrative Evaluation.

## RCLANG 196. Intensive Japanese I

Consent of instructor required. (10). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 124, 125, 126, 127 or 129. Pass/Fail with Narrative Evaluation.

## RCLANG 204. Spanish Language Internship Project I

Consent of instructor required. (1). (EXPERIENTIAL). May be elected eight times for credit. Offered mandatory credit/no credit.

## RCLANG 290. Intensive French II

RCLANG 190. (8). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in FRENCH 230, 231, or 232. Pass/Fail with Narrative Evaluation.

## RCLANG 291. Intensive German II

RCLANG 191 or GERMAN 100, 102, 103, or 221. (8). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in GERMAN 221, 230, 231, or 232. Pass/Fail with Narrative Evaluation.

## RCLANG 293. Intensive Russian II

Consent of instructor required. One of RCLANG 193, RUSSIAN 101 and 102 or RUSSIAN 103. (8). (Lang Req). May not be repeated for credit. Pass/Fail with Narrative Evaluation.

## RCLANG 294. Intensive Spanish II

RCLANG 194. (8). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SPANISH 230, 231, or 232. Pass/Fail with Narrative Evaluation.

## RCLANG 295. Intensive Latin II

LATIN 102, 103, or 193/504, or RCLANG 195. (8). (Lang Req). May not be repeated for credit. Pass/Fail with Narrative Evaluation.

## RCLANG 296. Intensive Japanese II

Consent of instructor required. ASIANLAN 129 or RCLANG 196. (10). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ASIANLAN 225, 226, and 227. Pass/Fail with Narrative Evaluation.

RCLANG 304. PALMA: Spanish in the Community
RC students must have passed the RC proficiency test; non-RC students must have completed Spanish 276. (1). (EXPERIENTIAL). May be elected four times for credit. Offered mandatory credit/no credit.

## RCLANG 306. Spanish Language Internship Project II

Consent of instructor required. (2-3). (EXPERIENTIAL). May not be repeated for credit.

## RCLANG 310. Accelerated Review-French

Permission of instructor. (4). May not be repeated for credit. Pass/Fail with Narrative Evaluation.

## RCLANG 314. Accelerated Review-Spanish

(4). May not be repeated for credit. Pass/Fail with Narrative Evaluation.

## RCLANG 320. Seminaire en francais

Consent of instructor required. Proficiency test and permission of instructor. (4). May be repeated for credit.

## RCLANG 321. Readings in German

Consent of instructor required. Proficiency test. (4). May be repeated for credit. May be elected more than once in the same term.

## RCLANG 323. Russian Readings

Proficiency in Russian (by RC standards). (4). May not be repeated for credit.

## RCLANG 324. Readings in Spanish

Consent of instructor required. Proficiency test. (4). May be repeated for credit.
RCLANG 325 / LATIN 325. Readings in Latin Drama: From Text to Performance
One of RCLANG 295, LATIN 194, 195, 232, or 233, or permission of instructor. (4). May be elected twice for credit.

RCLANG 333 / SLAVIC 316. RUSLAN Service Learning: Russian Language, Culture, and People in the U.S.

Native proficiency or one course in Russian language, literature, culture, or history. (3). (R\&E).
(EXPERIENTIAL). May be elected twice for credit. May not be repeated for credit.
RCLANG 334. Tutoring Latino/a Adults and Children: Spanish in the Community
Must pass RC Spanish Proficiency Test. (2-3; 2 in the half-term). (EXPERIENTIAL). May be elected twice for credit.

RC Natural Sciences (RCNSCI)
RCNSCI 110 / AOSS 171 / BIOLOGY 110 / EARTH 171 / ENSCEN 171 / ENVIRON 110. Introduction to Global Change: The Science Behind Sustainability
(4). (NS). (BS). May not be repeated for credit. Credit is granted for a combined total of 17 credits elected in introductory biology.

RCNSCI 202 / ENVIRON 201. Ecological Issues
(4). (NS). (BS). May not be repeated for credit.

## RCNSCI 419 / NRE 574 / PUBPOL 519. Sustainable Energy Systems

Senior standing; college-level course in Math or Economics or physical science. (3). May not be repeated for credit.

RC Social Sciences (RCSSCI)
RCSSCI 211 / ENVIRON 211. Social Sciences and Environmental Problems
(4). (SS). May not be repeated for credit.

RCSSCI 220 / SOC 220. Political Economy
(4). (SS). May not be repeated for credit.

RCSSCI 226. Globalization: Social Theory and Practice
(4). (SS). May not be repeated for credit.

RCSSCI 230. Alternative Approaches to Economic Development
(4). (SS). May not be repeated for credit.

RCSSCI 260. Theorizing Knowledge in the Social Sciences
(3). (SS). May not be repeated for credit.

RCSSCI 275 / HISTORY 285. Science, Technology, Medicine, and Society
(4). (SS). May not be repeated for credit.

RCSSCI 290. Social Science Basic Seminar
(1). May not be repeated for credit. Offered mandatory credit/no credit.

RCSSCI 301 / SOC 313. Social Science Theory I: From Social Contract to Oedipus Complex At least one 200-level social science course. (4). (SS). May not be repeated for credit. F.

RCSSCI 310 / HISTORY 310. Globalization in History: the Making of the Modern World Sophomores and above. (4). (SS). May not be repeated for credit.

RCSSCI 327 / ANTHRCUL 327 / WOMENSTD 307. Critical Theory in Medicine and Healing One course in ANTHRCUL or RCSSCI or WOMENSTD 240 or WOMENSTD with an SS designation. (4). (SS). May not be repeated for credit.

RCSSCI 330 / AAS 330. Urban and Community Studies I
(4). May not be repeated for credit.

RCSSCI 346 / AAS 345 / ASIAN 345. Genocide and Trauma in Southeast Asia, Africa, and Europe in the Twentieth Century
(3). (HU). May not be repeated for credit.

RCSSCI 357 / HISTORY 345. History and Theory of Punishment
(4). May not be repeated for credit.

RCSSCI 360. Social Science Junior Seminar
Upperclass standing. (3-4). (SS). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

RCSSCI 365. Excellence, Equity, and the Politics of Education
(4). (SS). May not be repeated for credit.

RCSSCI 387 / ASIAN 387 / POLSCI 345. Hate in Asia: Cultures of Conflict and Reconciliation At least one course on the history, politics, or culture of Asia. (4). (ID). May not be repeated for credit.

RCSSCI 390 / EDUC 390 / ELI 390 / LING 390. Community-Engaged Learning in ESL Teaching Contexts (3). (EXPERIENTIAL). May be elected three times for credit.

RCSSCI 395 / AMCULT 361 / EDUC 395 / ELI 395 / LATINOAM 361 / LING 391. Principles and Practices of Teaching ESL in Migrant Communities
(3). (EXPERIENTIAL). May be elected three times for credit.

RCSSCI 396 / AMCULT 362 / EDUC 396 / ELI 396 / LATINOAM 362 / LING 396. Migrant Community Outreach and ESL Teaching Practicum
ELI 395; completed with a minimum grade of C or better. (Prerequisites enforced at registration.) (2-3). (EXPERIENTIAL). May be elected three times for credit.

RCSSCI 428 / ANTHRCUL 428 / WOMENSTD 428. Sex Panics in the US and UK since 1890
One course in WOMENSTD or ANTHRCUL or RCSSCI, SOC, or HISTORY. (3). May not be repeated for credit.
RCSSCI 460. Social Science Senior Seminar
Senior standing. (4). May be repeated for credit.

265 / College of Literature, Science, and the Arts

RCSSCI 461. Senior Seminar
(3). May not be repeated for credit.

## Courses in LSA Romance Languages \& Literatures

French (FRENCH)

## FRENCH 100. Intensive Elementary French

No prior instruction in French OR placement of FRENCH 101. (Prerequisites enforced at registration.) Students with any prior study of French must take the Placement Test. (8 in the half-term). May not be repeated for credit. No credit granted to those who are enrolled in or have completed FRENCH 101, 102, 103, 113 or RCLANG 190.

## FRENCH 101. Elementary French

No prior instruction in French OR placement of FRENCH 101. (Prerequisites enforced at registration.) Students with any prior study of French must take the Placement Test. (4). May not be repeated for credit. No credit granted to those who are enrolled in or have completed FRENCH 100, 113, or RCLANG 190.

## FRENCH 102. Elementary French, Continued

FRENCH 101 (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed FRENCH 100, 103, 111 or 112, or RCLANG 190.

## FRENCH 103. Review of Elementary French

Students with any prior study of French must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement; RCLANG 150.
(Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who are enrolled in or have completed FRENCH 100, 102, 113, or RCLANG 190.

## FRENCH 113. Accelerated Reading in French

(4). May not be repeated for credit. No credit granted to those who have completed FRENCH 100, 101, 102, 103, 111, 112, or RCLANG 190. Completion of FRENCH 113 does not satisfy, even partially, the LSA language requirement.

## FRENCH 230. Intensive Second-Year French

One of FRENCH 100, 102, or 103 or RCLANG 190 (completed with a minimum grade of $C$ - or better); OR assignment of FRENCH 231 on Placement test. (Prerequisites enforced at registration.) (8 in the halfterm). (Lang Req). May not be repeated for credit. No credit granted to those who have completed FRENCH 231 or 232 or RCLANG 290 or 310.

## FRENCH 231. Second-Year French

One of FRENCH 100, 102, or 103 or RCLANG 190, (completed with a minimum grade of C- or better); OR assignment of FRENCH 231 on Placement test. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who have completed FRENCH 230 or RCLANG 290 or 310.

## FRENCH 232. Second-Year French, Continued

FRENCH 231 (completed with a minimum grade of C- or better); OR RCLANG 250; OR assignment by placement test. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed FRENCH 112 or 230 or RCLANG 290 or 310.

## FRENCH 235. Advanced Practice in French

FRENCH 230 or 232 with a grade of C- or higher; or RCLANG 290 or 310, or assignment by placement test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) Students who receive transfer credit from for FRENCH 232 and wish to continue with their language study are strongly encouraged to take the placement exam to be certain that they are prepared for FRENCH 235. (3). May not be repeated for credit.

## FRENCH 240. French and Francophone Topics in Translation

A knowledge of French is not required. Enrollment restricted to first- and second-year students. (3). (HU). May not be repeated for credit. Taught in English.

FRENCH 241 / HISTART 271. Origins of Modernism: Art and Culture in Nineteenth Century France (4). (HU). May not be repeated for credit.

## FRENCH 270. French and Francophone Literature and Culture

FRENCH 235 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## FRENCH 272. French and Francophone Film, Media, and Culture

FRENCH 235 (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## FRENCH 274. French and Francophone Societies and Culture

FRENCH 235 (completed with a minimum grade of C- or better). (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## FRENCH 276. Spoken and Written Performance in French

FRENCH 235 (completed with a minimum grade of $C$ - or better). (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## FRENCH 333. French Phonetics

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## FRENCH 335. Composition and Stylistics

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320 (RCCORE 320); or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320 (RCCORE 320). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## FRENCH 337. Seminar in Translation

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320 (RCCORE 320); or

FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320 (RCCORE 320). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## FRENCH 340. French Literature in Translation

A knowledge of French is not required. (3; 2 in the half-term). (HU). May not be repeated for credit. Taught in English.

## FRENCH 343 / HISTORY 323 / MEMS 323. French Enlightenment

(3). (HU). May not be repeated for credit.

FRENCH 344 / HISTORY 313. The Revolutionary Century: France, 1789-1900
(4; 3 in the half-term). (SS). May not be repeated for credit.
FRENCH 350. Special Topics in French and Francophone Studies
Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 12 credits. May be elected more than once in the same term.

## FRENCH 361. French American Studies

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be elected twice for credit. May be elected more than once in the same term. Taught in French.

## FRENCH 362. Quebec and French Canadian Studies

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## FRENCH 363. Caribbean Studies

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## FRENCH 364. African Studies (Maghreb)

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## FRENCH 365. African Studies (Sub-Saharan)

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## FRENCH 368. Enlightenment, Revolution, and Romanticism

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). (HU). May be elected twice for credit.

## FRENCH 369. Literature, History, and Culture of Modernity

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). $(H U)$. May be elected twice for credit.

## FRENCH 372. Film and Cinema Studies

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## FRENCH 374. Problems in Society and Social Theory

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be elected twice for credit.

## FRENCH 378. Studies in Genre

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits.

## FRENCH 379. Studies in Gender and Sexuality

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits.

## FRENCH 380. Intermediate Business French

One course in French numbered FRENCH 250 through 299; or FRENCH 235 and RCLANG 320; or study abroad equivalent. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in FRENCH 414. A maximum of nine credits from FRENCH 380, 381, and 414 as well as any of their equivalents accepted as transfer and/or study abroad credit can count toward the concentration or academic minor.

## FRENCH 381. Internship in France or Other Francophone Countries

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299 and one RCLANG 320. (Prerequisites enforced at registration.) FRENCH 380. (3). (EXPERIENTIAL). May be repeated for a maximum of 9 credits. May be elected more than once in the same term. A maximum of nine credits from FRENCH 380, 381, and 414 as well as any of their equivalents accepted as transfer and/or study abroad credit can count toward the concentration or academic minor. Offered mandatory credit/no credit.

## FRENCH 399. Independent Study

Two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course in FRENCH numbered 250-299, and one RCLANG 320. (Prerequisites enforced at registration.) (13). (INDEPENDENT). May not be repeated for credit.

## FRENCH 414. Advanced Business French

FRENCH 380; or two courses in FRENCH numbered 250-299; or FRENCH 235 and two RCLANG 320; or FRENCH 235, one course numbered FRENCH 250-299 and one RCLANG 320. (Prerequisites enforced at
registration.) (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in BA 415. A maximum of nine credits from FRENCH 380, 381, and 414 as well as any of their equivalents accepted as transfer and/or study abroad credit can count toward the concentration or academic minor.

## FRENCH 444. Readings in French and Francophone Studies (in English Translation)

One course in FRENCH numbered 240 or above. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Taught in English.

## FRENCH 450. Special Studies

Three courses in FRENCH numbered 300 or above. (Prerequisites enforced at registration.) (3). May be repeated for credit.

## FRENCH 466. Literature of the Twentieth Century

Three courses in FRENCH numbered 300 or above. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## FRENCH 491. Senior Honors Course

Seniors only. (3; 2 in the half-term). (INDEPENDENT). May not be repeated for credit. Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of FRENCH 492, the final grade is posted for both term's elections.

## FRENCH 492. Senior Honors Course

Senior standing. (Prerequisites enforced at registration.) FRENCH 491 or ROMLANG 498. (3; 2 in the halfterm). (INDEPENDENT). May not be repeated for credit.

VItalian (ITALIAN)

## ITALIAN 101. Elementary Italian

No prior instruction in Italian language OR placement of ITALIAN 101. (Prerequisites enforced at registration.) Students with any prior study of Italian must take the Placement Test. (4). May not be repeated for credit. No credit granted to those who are enrolled in have completed or are enrolled in ITALIAN 100, 103, or 113.

## ITALIAN 102. Elementary Italian

ITALIAN 101 (completed with a minimum grade of C- or better). College or university transfer students with any prior study of Italian must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) ITALIAN 102 is NOT open to students who have begun instruction at the high school level. College or university transfer students who have received credit for one term must take the placement test to determine the appropriate course for their needs. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ITALIAN 100 or 103.

## ITALIAN 113. Accelerated Reading in Italian

(4). May not be repeated for credit. No credit granted to those who have completed ITALIAN 100, 101, 102, or 103.

ITALIAN 230. Second-Year Italian
ITALIAN 100 or 102 or 103 (completed with a minimum grade of $C$ - or better); or assignment of ITALIAN

231 on placement test. College or university transfer students with any prior study of Italian must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) (8). (Lang Req). May not be repeated for credit. No credit granted to those who are enrolled in or have completed ITALIAN 113, 231, 232 or 233.

ITALIAN 231. Second-Year Italian
ITALIAN 100 or 102 or 103, (completed with a minimum grade of $C$ - or better); or assignment by placement test. College or university transfer students with any prior study of Italian must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who are enrolled or have completed ITALIAN 113, 230 or 233.

ITALIAN 232. Second-Year Italian, Continued
ITALIAN 231 (completed with a minimum grade of C-or better); or assignment by placement test. College or university transfer students with any prior study of Italian must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. No credit granted to those who are enrolled in or have completed ITALIAN 113, 230 or 233.

## ITALIAN 240. Italian Mafia

(3). (HU). May not be repeated for credit. Taught in English.

## ITALIAN 250. Undergraduate Seminar in Italian Studies

Enrollment restricted to first- and second-year students. No knowledge of Italian language required. (3). (HU). May not be repeated for credit.

ITALIAN 270. Italian Literature and Culture
ITALIAN 230, 232, or 233. (3). (HU). May be elected three times for credit. May be elected more than once in the same term.

ITALIAN 271. Language in Action
ITALIAN 230, 232, or 233. (3). May be elected three times for credit. May be elected more than once in the same term.

ITALIAN 275. Multimedia Language and Culture I
ITALIAN 230, 232, or 233. (3). May be elected twice for credit. Taught in Italian.
ITALIAN 305. Introduction to the Study of Literature in Italian
ITALIAN 230, 232, or 233. (3). May not be repeated for credit.
ITALIAN 310. Italian Cities
A knowledge of Italian is not required. (3). (HU). May not be repeated for credit. Taught in English.
ITALIAN 314 / HISTORY 326. Modern Italy: 1815 to Present
(3). May not be repeated for credit.

ITALIAN 315. Italian Cinema and Society Since 1945
A knowledge of Italian is not required. (3). (HU). May be elected twice for credit. Taught in English.

ITALIAN 316 / SAC 316. Screening Italian-Americans
(3). (R\&E). May not be repeated for credit.

ITALIAN 317. The Renaissance
(3). May not be repeated for credit.

ITALIAN 320. Modern Italian Literature
ITALIAN 230, 232, or 233. (3). May be elected twice for credit.
ITALIAN 333 / MEMS 333. Dante's Divine Comedy
A knowledge of Italian is not required. (3). (HU). May not be repeated for credit. Taught in English.
ITALIAN 340. Contemporary Italian Culture
ITALIAN 230, 232, or 233. (3). (HU). May not be repeated for credit.
ITALIAN 358. Italian Cinema
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or enrolled in SAC 358.

ITALIAN 387. Italian Renaissance Literature
ITALIAN 230, 232, or 233. (3; 2 in the half-term). (HU). May not be repeated for credit.
ITALIAN 410. Italian for Spanish Speakers
SPANISH 275 and 276; or SPANISH 277. (3). May not be repeated for credit. No credit granted for students who have completed ITALIAN 100, 101, 102, 103, 113, 230, 231, 232, or 233. Conducted in Italian. Students who have completed or are enrolled in a second-year Italian course (ITALIAN 231, 232 or 233) should not take this course, because it is not an appropriate match to the skills they have already mastered. ITALIAN 410 does not count toward the Italian major or minor requirements. ITALIAN 410 counts as a 400-level elective toward the Spanish major or minor. Students may count only one of ITALIAN 410 or PORTUG 415 toward the Spanish major or minor.

ITALIAN 415. Topics in Italian Studies
(3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term. Taught in English. Rackham credit requires additional work.

ITALIAN 422. Politics and Literature
ITALIAN 230, 232, or 233. (3). May not be repeated for credit.
ITALIAN 425. Italian Romanticism
ITALIAN 230, 232, or 233. (3). May not be repeated for credit.
ITALIAN 430. Twentieth Century Italy through its Literature
ITALIAN 230, 232, or 233. (3). May be elected twice for credit. Students may not repeat ITALIAN 430 with the same topic ID for credit.

ITALIAN 464. Modern Italian Poetry
ITALIAN 230, 232, or 233. (3; 2 in the half-term). May not be repeated for credit.

ITALIAN 475. Dante, Petrarca, Boccaccio
ITALIAN 230, 232, or 233. (3; 2-3 in the half-term). May be elected twice for credit. May be elected more than once in the same term. F, W: Ann Arbor; Sp: Florence.

ITALIAN 483. Ariosto and Tasso
ITALIAN 230, 232, or 233. (3; 2 in the half-term). May not be repeated for credit.
ITALIAN 499. Advanced Independent Study
ITALIAN 230, 232, or 233. (1-3). (INDEPENDENT). May be repeated for a maximum of 9 credits.
VPortuguese (PORTUG)

## PORTUG 101. Elementary Portuguese

(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PORTUG 100 or 415. F.

PORTUG 102. Elementary Portuguese
PORTUG 101 completed with a minimum grade of C- or better. (Prerequisites enforced at registration.) Students who have not taken PORTUG 101 at UM must schedule a placement exam with the instructor. (4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PORTUG 100 or 415.

## PORTUG 231. Second-Year Portuguese

PORTUG 102, completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) Students who have not taken PORTUG 102 at UM must schedule a placement exam with the instructor.
(4). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PORTUG 230. F.

## PORTUG 232. Second-Year Portuguese

PORTUG 231 (C- or better) or PORTUG 415 (C- or better). (Prerequisites enforced at registration.) Students who have not taken PORTUG 231 at UM must schedule a placement exam with the instructor. (4). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PORTUG 230.

## PORTUG 280. Portuguese for Speakers of Romance Languages

One of: SPANISH 275, 276, 277, or 278; or RCLANG 324; or FRENCH 235; or ITALIAN 230, 232, or 233. Valid prerequisite options also include the following study abroad equivalents (registration student groups): SP27 (completed SPANISH 277 abroad) and F235 (completed FRENCH 235 abroad) as well. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to those who have completed or are enrolled in PORTUG 100, 101, or 102.

## PORTUG 283. Portuguese for the Professions

PORTUG 232 or 280. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## PORTUG 287. Advanced Portuguese Conversation and Composition

PORTUG 232 or 280 or 415. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## PORTUG 290. Conversation through Film and Popular Music

PORTUG 232, PORTUG 280, or PORTUG 415; or equivalent (POR4 student group). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## PORTUG 301. Topics in Afro-Luso-Brazilian Cultures

PORTUG 287 (or POR5 student group). (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## PORTUG 350. Independent Study

Consent of instructor required. PORTUG 232. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## PORTUG 461. Brazilian Culture

PORTUG 287 or its equivalent to prove advanced proficiency in the Portuguese language. (3). May not be repeated for credit.

PORTUG 471. Literature in the Portuguese-Speaking World
PORTUG 287 or its equivalent to prove advanced proficiency in the Portuguese language. (3). May not be repeated for credit. Taught in Portuguese.

## PORTUG 472. Cinema in the Portuguese-Speaking World

PORTUG 287 or its equivalent to prove advanced proficiency in the Portuguese language. (3). May not be repeated for credit.

## PORTUG 473. Popular Music in the Portuguese-Speaking World

PORTUG 287 or its equivalent to prove advanced proficiency in the Portuguese language. (3). May not be repeated for credit.

## PORTUG 474. Advanced Topics in Afro-Luso-Brazilian Cultures

PORTUG 287 or its equivalent to prove advanced proficiency in Portuguese. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## PORTUG 499. Advanced Independent Study

Consent of instructor required. PORTUG 287 or its equivalent to prove advanced proficiency in the Portuguese language. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.

## Romance Languages and Literatures (ROMLANG)

ROMLANG 241. Introduction to Medieval and Early Modern Romance Literatures and Cultures (3). (HU). May not be repeated for credit. Taught in English.

ROMLANG 242. Introduction to Modern and Contemporary Romance Literature's and Cultures It can be taken as a logical follow-up to ROMLANG 241 (Introduction to Medieval and Early Modern Romance Literatures and Cultures) or on its own. (3). (HU). May not be repeated for credit.

## ROMLANG 250. Special Topics in Humanities

(3). (HU). May be repeated for a maximum of 6 credits.

ROMLANG 253. The Mediterranean: History and Culture
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in either HISTART 253 or JUDAIC 253.

ROMLANG 377. Race and Ethnicity in Romance Studies
(3). May not be repeated for credit.

## ROMLANG 400. Topics in Romance Languages and Literature

(1-4). May be elected twice for credit. Course may be taught in a Romance language. Rackham credit requires additional work.

## ROMLANG 498. Senior Seminar in Romance Languages and Literatures

RLL concentrators and senior standing. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. Rackham credit requires additional work.

ROMLANG 499. Senior Honors Course
Consent of department required. RLL concentrators senior standing, and completion of ROMLANG 498. (3; 2 in the half-term). (INDEPENDENT). May not be repeated for credit.

Romance Linguistics (ROMLING)

## ROMLING 298 / SPANISH 298. Introduction to Spanish Linguistics

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to students who have completed SPANISH 330 or ROMLING 330.

## ROMLING 300. Introduction to the Romance Languages

French, Spanish, or Italian: five terms at college level or equivalent. (3; 2 in the half-term). May not be repeated for credit.

ROMLING 333 / SPANISH 333. Techniques of Pronunciation and Oral Expression
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## ROMLING 410 / SPANISH 410. Spanish Phonetics and Phonology

[SPANISH/ROMLING 298, or SPANISH 333, or LING 210 and (six additional credits from SPANISH 279 through 399, or 300-level study abroad equivalent)] OR [SPANISH/ROMLING 298, or SPANISH 333, or LING 210 and two courses of RCLANG 324 and (three additional credits from SPANISH 279 through 399, or 300-level study abroad equivalent)]. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

ROMLING 413 / EDCURINS 455 / SPANISH 413. Teaching Spanish/Applications of Linguistics Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) One of: SPANISH 298, ROMLING 298, LING 210. (3). May not be repeated for credit.

## ROMLING 414 / SPANISH 414. Background of Modern Spanish

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) One of: SPANISH 298, ROMLING 298, or LING 210. (3). May not be repeated for credit. Taught in Spanish.

## ROMLING 416 / SPANISH 416. Spanish Sociolinguistics

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) One of SPANISH 298, ROMLING 298, LING 210. (3). May not be repeated for credit. Rackham credit requires additional work.

## ROMLING 418 / SPANISH 418. Spanish Second Language Acquisition

(3). May not be repeated for credit. Rackham credit requires additional work.

VSanish (SPANISH)

## SPANISH 100. Intensive Elementary Spanish

No prior instruction in Spanish language OR placement of SPANISH 101. (Prerequisites enforced at registration.) Students with any prior study of Spanish must take the Placement Test. (8 in the half-term). May not be repeated for credit. No credit granted to those who are enrolled in or have completed SPANISH 101, 102, 103, 113, or RCLANG 194. This course does not meet the threshold for proficiency for the Residential College.

## SPANISH 101. Elementary Spanish

No prior Spanish language or placement of SPANISH 101. (Prerequisites enforced at registration.) Students with any prior study of Spanish must take the Placement Test. (4). May not be repeated for credit. No credit granted to those who are enrolled in or have completed or are enrolled in SPANISH 100, 113, or RCLANG 194.

## SPANISH 102. Elementary Spanish

SPANISH 101 with a minimum grade of C- or better. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who are enrolled in or have completed SPANISH 100, 103, 113, or RCLANG 194.

## SPANISH 103. Review of Elementary Spanish

Assignment of SPANISH 103 by placement test; or RCLANG 154. College or university transfer students with any prior study of Spanish must take the Placement Test. (Prerequisites enforced at registration.) Only placement score and not language coursework completed at a previous school will determine placement. (4). May not be repeated for credit. No credit granted to those who are enrolled in or have completed SPANISH 100, 102, 113, or RCLANG 194.

## SPANISH 230. Intensive Second-Year Spanish

SPANISH 100, 102 or 103 with a grade of C- or higher; or RCLANG 194; or assignment of SPANISH 231 by placement test. College or university transfer students with any prior study of Spanish must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) (8 in the half-term). (Lang Req). May not be repeated for credit. No credit granted to those who are enrolled in or have completed SPANISH 113, 231, 232, or RCLANG 294 or 314. This course does not meet the threshold for proficiency for the Residential College.

## SPANISH 231. Second-Year Spanish

SPANISH 100, 102 or 103 with a grade of C- or higher; or RCLANG 194; or assignment of SPANISH 231 by placement test. College or university transfer students with any prior study of Spanish must take the Placement Test. Only the placement score and not language coursework completed at a previous school will determine placement. (Prerequisites enforced at registration.) (4). May not be repeated for credit. No credit granted to those who are enrolled in or have completed SPANISH 113, 230, or RCLANG 294 or 314.

## SPANISH 232. Second-Year Spanish, Continued

SPANISH 231 with a minimum grade of C- or better, or RCLANG 254; or assignment by Placement Test. College or university transfer students with any prior study of Spanish must take the Placement Test. (Prerequisites enforced at registration.) Only placement score and not language coursework completed at a previous school will determine placement. (4). (Lang Req). May not be repeated for credit. No credit granted to those who are enrolled in or have completed SPANISH 113 or 230; or RCLANG 294 or 314.

## SPANISH 277. Reading, Grammar, and Composition

SPANISH 230 or 232 with a grade of C- or higher; RCLANG 294 or 314; or assignment of SPANISH 277 or SPANISH 275 by placement test; or SPANISH 274x or Spanish 279x AP or IB test credit. (Prerequisites enforced at registration.) Students who receive transfer credit for SPANISH 232 and wish to continue with their language study are strongly encouraged to take the Spanish placement exam to be certain that they are prepared for SPANISH 277. (4). May not be repeated for credit. No credit for students who have completed SPANISH 276. SPANISH 277 is the prerequisite for a minor or major in Spanish.

## SPANISH 278 / AMCULT 224 / LATINOAM 224. Spanish for Heritage Language Learners

Basic knowledge of Spanish language. (4). May not be repeated for credit. No credit granted to students who have completed SPANISH 290. This course satisfies the prerequisite for the Spanish major or minor, but does not count toward the required courses to complete a Spanish major or minor. This course does not satisfy the language requirement.

SPANISH 280. Conversation Through Spanish/Latin American Film
SPANISH 275, 276, or 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324.
(Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 283. Spanish for the Professions

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to students who have completed SPANISH 305.

## SPANISH 287. Written Expression: Achieving Competence

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to students who have completed SPANISH 310. Conducted in Spanish.

## SPANISH 289. Introduction to Translation

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 295. Introduction to Hispanic Literatures

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit. No credit granted to students who have completed SPANISH 320.

SPANISH 296. Special Topics in Hispanic Literatures and Cultures
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 298 / ROMLING 298. Introduction to Spanish Linguistics
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit. No credit granted to students who have completed SPANISH 330 or ROMLING 330.

## SPANISH 299. Introductory Internship

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (EXPERIENTIAL). May not be repeated for credit. Credit can be earned for no more than one independent study and one internship without the approval of the Spanish Undergraduate Curriculum Committee. Offered mandatory credit/no credit.

## SPANISH 308. Workshop in Academic Writing

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (1). May not be repeated for credit. This course does not satisfy the language requirement. This course does not count toward the Spanish major or minor.

## SPANISH 313. Contemporary Issues in Spain

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 315. Contemporary Issues in the Caribbean and South America

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 328. Studies in Hispanic Popular Culture

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 331 / GTBOOKS 331. Great Books of Spain and Latin America
Open to students at all levels. (3). (HU). May not be repeated for credit.
SPANISH 332. Short Narrative in Latin America/Spain
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

SPANISH 333 / ROMLING 333. Techniques of Pronunciation and Oral Expression SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 335. Contemporary Spanish and Spanish-American Cultural Production
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SPANISH 337. Poetry Workshop

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 339. Introduction to Spanish Culture Before 19th Century
SPANISH 275, 276, or 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 340. Introduction to Contemporary Spanish Culture
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 341. Introduction to Pre-Columbian/Colonial/Modern Latin-American Culture SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 342. Introduction to Contemporary Latin American Culture

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 350. Independent Studies

Consent of instructor required. Permission of concentration advisor. Application required. (1-3). (INDEPENDENT). May not be repeated for credit. Credit can be earned for no more than one independent study and one internship without the approval of the Spanish Undergraduate Curriculum Committee. Independent studies of fewer than three credits will not count toward the Spanish major requirements.

## SPANISH 355. New World Spanish

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 368. Literature and the Other Arts
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

SPANISH 371. Survey of Spanish Literature, I
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit. Conducted in Spanish.

## SPANISH 372. Survey of Spanish Literature, II

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit. Conducted in Spanish.

## SPANISH 373. Topics in Hispanic Studies

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SPANISH 381. Survey of Latin American Literature, I

SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

SPANISH 382. Survey of Latin American Literature, II
SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

SPANISH 387. Social Forces and Cultural Production in Medieval/Early Modern Spain SPANISH 275, 276, or SPANISH 277; or SPANISH 278 (or 290) or AMCULT 224 or LATINOAM 224; or RCLANG 324. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.

## SPANISH 410 / ROMLING 410. Spanish Phonetics and Phonology

[SPANISH/ROMLING 298, or SPANISH 333, or LING 210 and (six additional credits from SPANISH 279 through 399, or 300-level study abroad equivalent)] OR [SPANISH/ROMLING 298, or SPANISH 333, or LING 210 and two courses of RCLANG 324 and (three additional credits from SPANISH 279 through 399, or 300-level study abroad equivalent)]. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 411. Advanced Syntax

[SPANISH/ROMLING 298 or LING 210 and (six additional credits from SPANISH 279 through 399, or 300level study abroad equivalent)] OR [SPANISH/ROMLING 298 or LING 210 and two courses of RCLANG 324 and (three additional credits from SPANISH 279 through 399, or 300-level study abroad equivalent)]. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 413 / EDCURINS 455 / ROMLING 413. Teaching Spanish/Applications of Linguistics
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) One of: SPANISH 298, ROMLING 298, LING 210. (3). May not be repeated for credit.

## SPANISH 414 / ROMLING 414. Background of Modern Spanish

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) One of: SPANISH 298, ROMLING 298, or LING 210. (3). May not be repeated for credit.

## SPANISH 415. Problems in Language Translation

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) One of: SPANISH 298, ROMLING 298, SPANISH 289 or LING 210 AND six credits of 300 level Spanish. (3). May not be repeated for credit.

## SPANISH 416 / ROMLING 416. Spanish Sociolinguistics

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between

SPANISH 279 and 399. (Prerequisites enforced at registration.) One of SPANISH 298, ROMLING 298, LING 210. (3). May not be repeated for credit. Rackham credit requires additional work.

SPANISH 418 / ROMLING 418. Spanish Second Language Acquisition
(3). May not be repeated for credit. Rackham credit requires additional work.

## SPANISH 420 / AMCULT 420 / LATINOAM 420. Latin American \& Latino/a Film Studies

Nine credits chosen from: SPANISH 279 and 399 or two RCLANG 324; and six credits chosen from SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## SPANISH 421. Cinema From Spain

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Rackham credit requires additional work.

## SPANISH 425. Latin American/Spanish Theater

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 428. Internship in Spanish

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). (EXPERIENTIAL). May not be repeated for credit. Credit can be earned for no more than one independent study and one internship without the approval of the Spanish Undergraduate Curriculum Committee. Offered mandatory credit/no credit.

## SPANISH 430. Advanced Studies in Hispanic Culture and Society

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SPANISH 432. Gender, Sexuality, and Culture

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 435. Independent Study

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (1-3). (INDEPENDENT). May be repeated for a maximum of 3 credits. Credit can be earned for no more than one independent study and one internship without the approval of the Spanish Undergraduate Curriculum Committee. Independent studies of fewer than three credits will not count toward the Spanish major requirements.

## SPANISH 437. Introduction to Literature Studies and Criticism

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SPANISH 438. Political and Economic Thought in Latin America/Spain

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 440. Literatures and Cultures of the Borderlands: The Politics of Language

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Conducted in Spanish.

## SPANISH 445. Romance Studies: Introduction to French-Spanish Literary Relations

A reading knowledge of French and Spanish. (3). May not be repeated for credit.

## SPANISH 450. Middle Ages

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SPANISH 456. Golden Age

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 458. Early Modern Narrative

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 459. Cervantes

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits.

## SPANISH 460. The Spanish Comedia

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 464. Spanish Romanticism

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 466. The Modern Spanish Novel II

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 467. Literary and Artistic Movements in Latin America/Spain
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SPANISH 468. Performance in the Hispanic World

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 470. Colonial Latin America

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

SPANISH 472. Indigenous Societies
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SPANISH 473. Colonial/Postcolonial Studies in Latin-American Cultures
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SPANISH 475. Latin American/Spanish Narrative

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Taught in Spanish.

## SPANISH 476. Latin-American Poetry

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Taught in Spanish.

SPANISH 485. Case Studies in Peninsular Spanish and Latin American Literature
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

SPANISH 487. Studies in Hispanic Linguistics
Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324 and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) SPANISH 298, ROMLING 298, or LING 210. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term. Rackham credit requires additional work.

## SPANISH 488. Topics in Hispanic Literature/History/Culture

Nine credits chosen between SPANISH 279 and 399; or two RCLANG 324's and six credits chosen between SPANISH 279 and 399. (Prerequisites enforced at registration.) (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

SPANISH 490. Spanish Honors: Introduction to Literary Studies and Criticism
Consent of instructor required. One 400-level SPANISH literature course, and permission of Honors advisor. (3). May not be repeated for credit.

## SPANISH 491. Senior Honors Course

Consent of instructor required. SPANISH 490 or ROMLANG 498. Open only to seniors by permission of the
departmental Honors Committee. (3). (INDEPENDENT). May not be repeated for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. Credit can be earned for no more than one independent study and one internship without the approval of the Spanish Undergraduate Curriculum Committee. Independent studies of fewer than three credits will not count toward the Spanish major requirements.

## Courses in LSA Screen Arts \& Cultures

Screen Arts and Cultures (SAC)
SAC 210. Introduction to Screenwriting
SAC 236. (3). May not be repeated for credit.
SAC 236 / RCHUMS 236. The Art of the Film
(4). (HU). May not be repeated for credit.

SAC 250 / JUDAIC 250 / NEAREAST 280. Jewish Film: Race, Ethnicity, and Nationality (4). (HU). (R\&E). May not be repeated for credit.

## SAC 272. Classical Film Theory

(3). May not be repeated for credit.

SAC 282 / ASIAN 282 / RCHUMS 283. Asia Goes Viral: Asian Pop Culture in the Age of Social Media (4). (ID). May not be repeated for credit.

## SAC 290. Introduction to Media Production

SAC 236 or RCHUMS 236, completed with a minimum grade of $C$ - or better. (Prerequisites enforced at registration.) (3). (CE). May not be repeated for credit.

## SAC 300. Dramatic Narrative I

SAC 290; and concentration in Screen Arts and Cultures. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SAC 301. Documentary I

SAC 290 and SAC Concentrator. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SAC 302. Television I

SAC 290; and concentration in Screen Arts and Cultures. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SAC 304. Topics in Media Production I

SAC 290 with a minimum grade of $C$ - or better, and a declared major in Screen Arts and Cultures. (Prerequisites enforced at registration.) (1-3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

SAC 305. The Experimental Screen
SAC 290. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SAC 306. New Media Practices I

SAC 290. (Prerequisites enforced at registration.) Students should have basic working knowledge of the Macintosh platform, Photoshop, and digital video. (3). May not be repeated for credit.

SAC 308. Screenwriting for Non-Majors
(3). (CE). May not be repeated for credit.

SAC 310. Screenwriting I: The Feature Script
SAC 210,SAC 290,SAC majors. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

SAC 311. Writing for Television I: The Spec Script
SAC 210,SAC 290, SAC major. (Prerequisites enforced at registration.) (3). May not be repeated for credit.
SAC 313 / RCHUMS 313 / SLAVIC 313. Russian and Ukrainian Cinema
(3). (HU). May not be repeated for credit.

SAC 314 / POLISH 314. Polish Cinema
(3). (HU). May not be repeated for credit.

SAC 315 / CZECH 315. The Czech New Wave and Its Legacy
(3). (HU). (R\&E). May not be repeated for credit.

SAC 316 / ITALIAN 316. Screening Italian-Americans
(3). (R\&E). May not be repeated for credit.

SAC 324 / COMM 251. Understanding Media Industries
(4). (SS). May not be repeated for credit. No credit granted to those who have completed COMM 351.

SAC 325. New Line and New Hollywood Cinema
(3). May not be repeated for credit.

SAC 330 / ENGLISH 330. Major Directors
SAC 236. (3). (HU). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

SAC 331 / ENGLISH 331. Film Genres and Types
SAC 236. (3). (HU). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## SAC 333 / GERMAN 333. Fascist Cinemas

SAC 236. (3). (HU). (R\&E). May not be repeated for credit.
SAC 334 / AMCULT 334 / COMM 334. Race, Gender, Sexuality and U.S. Culture in Video Games (4; 3 in the half-term). May not be repeated for credit.

SAC 335. Authorship and the Archive: Exploring the Film, Theater, and TV Collections of the $U$ of $M$ Special Collections Library
SAC 236 or "Graduate Standing". (Prerequisites enforced at registration.) SAC 272. (3). (HU). May not be repeated for credit.

## SAC 340. Writing Film Criticism

SAC 230 or 236. (Prerequisites enforced at registration.) (3). (HU). May not be repeated for credit.
SAC 346 / AMCULT 346 / GERMAN 346. Media Matter: From Print to Screen Culture
(3). (HU). May not be repeated for credit.

SAC 350. The Silent Screen: Arts and Cultures
(3). (HU). May not be repeated for credit.

SAC 352. Film History: Origins to the French New Wave
SAC 236. (3). (HU). May not be repeated for credit.
SAC 353. Film History: Post New Wave
SAC 236. (3). (HU). May not be repeated for credit.
SAC 354. New Media History
SAC 236. (3). (HU). May not be repeated for credit.
SAC 355. Television History
SAC 236. (3). (HU). May not be repeated for credit.

## SAC 358. Italian Film: History, Art, Entertainment

(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ITALIAN 358.

SAC 366. Topics in Film, Television and Popular Culture
(3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

SAC 367. Introduction to Digital Media Studies
(3). (HU). May not be repeated for credit.

## SAC 368. Topics in Digital Media Studies

SAC 367. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

SAC 372. Contemporary Film Theory
SAC 236. (3). (HU). May not be repeated for credit.
SAC 375. Television Theory and Criticism
SAC 236. (3). May not be repeated for credit.
SAC 376. New Media Theory
SAC 236. (3). (HU). May not be repeated for credit.
SAC 380 / AMCULT 380 / LATINOAM 380. Studies in Transnational Media
Prior coursework in Screen Arts \& Cultures, Communications (TV), or Latino Studies. Knowledge of Spanish is not required. (3). May not be repeated for credit. Taught in English.

SAC 381 / AMCULT 381 / LATINOAM 381. Latinas/Latinos and the Media
Consent of department required. (3). (HU). May not be repeated for credit.

## SAC 400. Dramatic Narrative II

Consent of instructor required. A 300- (or 400-) level production course in a relevant emphasized area:
SAC 300, 301, 302, or 304. (3). May not be repeated for credit.

## SAC 401. Documentary II

SAC 301, SAC concentrators only. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SAC 402. Television II

SAC 302, SAC concentrators only. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SAC 403. Television Sketch Comedy

Consent of instructor required. SAC 310 or SAC 311, SAC 300 or SAC 302. (3). May not be repeated for credit.

## SAC 404. Topics in Media Production II

A 300- (or 400-) level production course in the relevant emphasized area: SAC 300, 301, 302, or 306; and permission of instructor. (1-3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SAC 405. Screendance

Consent of instructor required. A 300 (or 400) level production course in the relevant emphasized area: SAC 300 or 301 and permission of instructor. (3). May not be repeated for credit.

## SAC 406. New Media Practices II

Consent of instructor required. SAC 306 or equivalent experience and permission of instructor. (3). May not be repeated for credit.

## SAC 410. Screenwriting II: The Rewrite

SAC 310 and SAC concentrators. (3). May not be repeated for credit.

## SAC 411. Writing for Television II: Pilots

SAC 311. (Prerequisites enforced at registration.) SAC 290 and 310. (3). May not be repeated for credit.

## SAC 422. Topics in Avant-Garde Film

SAC 230 or 236. (3). May not be repeated for credit.

## SAC 423. Practicum for the Screenwriter

SAC 290, 310, and 410. (3). May not be repeated for credit.

## SAC 427. Screenwriting III

SAC 310 and 410. Limited to students whose work is judged as showing outstanding potential in writing for the screen. (3). May not be repeated for credit.

## SAC 440 / AAS 440. African Cinema

AAS 200. (3). May not be repeated for credit.

## SAC 441. National Screens

SAC 230 or 236 or 360 . (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SAC 455. Topics in Film Studies

SAC 230 or 236. (3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

## SAC 458 / ASIAN 458. Film Culture in Korea

(3). May not be repeated for credit.

## SAC 461 / WOMENSTD 461. Explorations in Feminist Film Theory

WOMENSTD 240 or AMCULT 240; and junior standing. (3). May not be repeated for credit.
SAC 475. Cultural Studies and Critical Theory in Film and Screen Media
(3). (R\&E). May not be repeated for credit.

## SAC 480. Internship

Consent of instructor required. (2). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## SAC 485. The Global Screen

Junior or Above. (Prerequisites enforced at registration.) Junior standing; SAC 230 or 236. (3). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

## SAC 489. Senior Screenwriting Tutorial

SAC 410, SAC concentrators only. (Prerequisites enforced at registration.) (3). (INDEPENDENT). May not be repeated for credit.

## SAC 490. Senior Honors Research

Consent of instructor required. SAC Concentrators only. (1-4). (INDEPENDENT). May be repeated for a maximum of 4 credits. May be elected more than once in the same term.

## SAC 495. Senior Honors Seminar

Consent of instructor required. (1-6). May be repeated for a maximum of 6 credits.

## SAC 499. Independent Study

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for credit. May be elected more than once in the same term. May not be used toward the Global Media Studies academic minor.

## SAC 500. Directed Study in Screen Arts and Cultures

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 6 credits. May be elected more than once in the same term. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## Courses in LSA Slavic Languages \& Literatures

Bosnian, Croatian, and Serbian (BCS)
BCS 131. First-Year Bosnian/Croatian/Serbian I
(4). May not be repeated for credit. May not be repeated for credit.

BCS 132. First-Year Bosnian/Croatian/Serbian II
BCS 131. (4). May not be repeated for credit. May not be repeated for credit.

## BCS 231. Second-Year Bosnian/Croatian/Serbian I

BCS 132. (Prerequisites enforced at registration.) (4). May not be repeated for credit. May not be repeated for credit.

## BCS 232. Second-Year Bosnian/Croatian/Serbian II

BCS 231. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. May not be repeated for credit.

BCS 350 / JUDAIC 350 / REEES 350. Legacy of the Holocaust in Yugoslav Culture: How and Why We Need to Narrate the Holocaust
(3). (HU). (R\&E). May not be repeated for credit.

## BCS 436. Modern Bosnian/Croatian/Serbian Literature

(3). May be elected twice for credit.

## BCS 439. Directed Reading of Bosnian/Croatian/Serbian Literature

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits.

## Czech (CZECH)

CZECH 141. First-Year Czech
(4). May not be repeated for credit. May not be repeated by credit.

## CZECH 142. First-Year Czech

CZECH 141. (Prerequisites enforced at registration.) (4). May not be repeated for credit. May not be repeated for credit.

## CZECH 241. Second-Year Czech

CZECH 142 or 143. (4). May not be repeated for credit. May not be repeated for credit.

## CZECH 242. Second-Year Czech

CZECH 241. (4). (Lang Req). May not be repeated for credit. May not be repeated for credit.
CZECH 315 / SAC 315. The Czech New Wave and Its Legacy
(3). (HU). (R\&E). May not be repeated for credit.

CZECH 480. Supervised Czech Reading
Consent of instructor required. (1-4). (INDEPENDENT). May be elected twice for credit.
CZECH 484. Modern Czech Literature
(3). May not be repeated for credit.

VPolish (POLISH)

## POLISH 121. First-Year Polish

(4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in POLISH 123. F.

## POLISH 122. First-Year Polish

POLISH 121. (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in POLISH 123. W.

## POLISH 214 / REEES 214. Rock Poetry and Political Protest in Poland

(3). (HU). May not be repeated for credit.

POLISH 215. Heart of Europe: Poland Today
(3). (HU). May not be repeated for credit.

## POLISH 221. Second-Year Polish

POLISH 122. (4). May not be repeated for credit. May not be repeated for credit. F.

## POLISH 222. Second-Year Polish

POLISH 221. (4). (Lang Req). May not be repeated for credit. May not be repeated for credit. W.
POLISH 314 / SAC 314. Polish Cinema
(3). (HU). May not be repeated for credit.

## POLISH 321. Third-Year Polish

POLISH 222. (3). May not be repeated for credit. May not be repeated for credit. F.

## POLISH 322. Third-Year Polish

POLISH 321. (3). May not be repeated for credit. May not be repeated for credit. W.
POLISH 324 / MEMS 324. Polish Literature from the Middle Ages to 1795: God's Playground
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in POLISH 524.

POLISH 325. Polish Literature in the Nineteenth Century: Reading the Stateless Nation
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in POLISH 525.

## POLISH 326. Polish Literature in English: 1890 to Present

(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in POLISH 526.

POLISH 331 / HISTORY 331. Poland in the Modern World (4; 3 in the half-term). (HU). May not be repeated for credit.

POLISH 357. Polish Drama in Context
(3). (HU). May not be repeated for credit.

POLISH 421. Fourth-Year Polish I
POLISH 322. (3). May not be repeated for credit. May not be repeated for credit.

## POLISH 422. Fourth-Year Polish II

POLISH 421. (3). May not be repeated for credit. May not be repeated for credit.

## POLISH 450. Directed Polish Reading

Consent of instructor required. POLISH 325 and/or 326 and reading knowledge of Polish. (1-3).
(INDEPENDENT). May be repeated for a maximum of 8 credits.

## POLISH 491. Senior Honors Course

Consent of instructor required. Approval of departmental Honors Committee. (3). May not be repeated for credit. Credit is granted for a combined total of six credits of POLISH 491 and 492. Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## POLISH 492. Senior Honors Course

Consent of instructor required. Approval of departmental Honors Committee. (3). May be repeated for a maximum of 6 credits. Credit is granted for a combined total of six credits of POLISH 491 and 492.

## Russian (RUSSIAN)

## RUSSIAN 101. First-Year Russian

(5). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 103/RCLANG 193 or RUSSIAN 123 or RUSSIAN 511.

## RUSSIAN 102. First-Year Russian, Continued

RUSSIAN 101. (Prerequisites enforced at registration.) (5). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 103 or 123 or 512, or RCLANG 193.

## RUSSIAN 103. Intensive First-Year Russian

(8). May not be repeated for credit. Credit is granted from only one course among RUSSIAN 103, 111, 123, or RCLANG 193. No credit is granted to those who have completed or are enrolled in RUSSIAN 101, 102, 511, or 512.

## RUSSIAN 123. Intensive First Year Russian

(8 in the half-term). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 101, 102, or RUSSIAN 103/RCLANG 193 or RUSSIAN 511 or 512. Sp, Su.

## RUSSIAN 125. Russian for Heritage Speakers I

Native or near-native speaker or permission of instructor. (3). May not be repeated for credit.

## RUSSIAN 201. Second-Year Russian

RUSSIAN 102 or 103 or 123, or RCLANG 193. (Prerequisites enforced at registration.) (5). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 203 or RCLANG 293 or RUSSIAN 223 or 513.

## RUSSIAN 202. Second-Year Russian, Continued

RUSSIAN 201. (Prerequisites enforced at registration.) (5). (Lang Req). May not be repeated for credit.

May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 203 or 223 or 514, or RCLANG 293.

RUSSIAN 203. Intensive Second Year Russian
RUSSIAN 102, 103, or 123 or RCLANG 193. (Prerequisites enforced at registration.) (8). (Lang Req). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 201, 202, 223, 513 or 514.

## RUSSIAN 223. Intensive Second Year Russian

RUSSIAN 123 or 103 or 102, or RCLANG 123. (Prerequisites enforced at registration.) (8 in the half-term). (Lang Req). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 201, 202, or RUSSIAN 203/RCLANG 293. Sp, Su.

## RUSSIAN 225. Russian for Heritage Speakers II

Successful completion of RUSSIAN 225 or permission of instructor. (3). (Lang Req). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 301, 302, 303, 515, or 516.

## RUSSIAN 231. Russian Culture and Society: An Introduction

(3). (HU). May not be repeated for credit.

## RUSSIAN 301. Third-Year Russian

RUSSIAN 202, 203, 223, 225, or RCLANG 293. (Prerequisites enforced at registration.) Satisfactory scores on a proficiency test. (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 303, 325, or 515. F.

## RUSSIAN 302. Third-Year Russian

RUSSIAN 301 or RCLANG 323. (Prerequisites enforced at registration.) (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 303, 325, or 516.

## RUSSIAN 303. Third-Year Intensive Russian

RUSSIAN 202, 203, 223 or RCLANG 293. (Prerequisites enforced at registration.) (8). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 301, 302, 325, 515, or 516. S.

## RUSSIAN 322. Russia Today

(4). (HU). May not be repeated for credit.

## RUSSIAN 346. Russian Literature from Romanticism to Realism

(3). (HU). May not be repeated for credit.

## RUSSIAN 347 / RCHUMS 347. Survey of Russian Literature

A knowledge of Russian is not required. No knowledge of Russian literature or history is presupposed. (4).
(HU). May not be repeated for credit.

## RUSSIAN 348 / RCHUMS 348. Survey of Russian Literature

A knowledge of Russian is not required. (4). (HU). May not be repeated for credit.

RUSSIAN 358. Central Asia through Russian Eyes: Cultural Appropriation of an Exotic Land (3). (HU). (R\&E). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 558. Taught in English.

RUSSIAN 361. Russian Modernism: Decadence, Symbolism, and the Avant-garde in Russia (3). (HU). May not be repeated for credit. May not be repeated for credit.

RUSSIAN 375. Literature and Empire: Nineteenth-Century Russian Prose
(3). (HU). (R\&E). May not be repeated for credit.

## RUSSIAN 391 / MEMS 391. Art, Culture, and Literature in Old Russia

(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 551.

## RUSSIAN 401. Fourth-Year Russian

RUSSIAN 302 or 303. (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 403 or 517. F.

## RUSSIAN 402. Fourth-Year Russian

RUSSIAN 401. (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in RUSSIAN 403 or 518. W.

## RUSSIAN 430. Supervised Reading of Russian Literature

Consent of instructor required. Permission of Department Chair. (1-4). (INDEPENDENT). May be elected twice for credit.

## RUSSIAN 461. Pushkin

(3). May not be repeated for credit.

## RUSSIAN 462. Dostoevsky

(3). May not be repeated for credit. May not be repeated for credit. Taught in English. Russian concentrators are expected to read Russian texts.

## RUSSIAN 463. Chekhov

Permission of instructor. (3). May not be repeated for credit. Taught in English. All readings may be done in English. Russian concentrators are expected to read Russian texts.

## RUSSIAN 464. Tolstoy

(3). May not be repeated for credit. Taught in English. No prior knowledge of Russian literature and culture is necessary. Russian concentrators are expected to read Russian texts.

## RUSSIAN 466. Gogol

Permission of instructor. (3). May not be repeated for credit.

## RUSSIAN 469. 20th-Century Authors

(3). May be repeated for a maximum of 6 credits. Taught in English.

## RUSSIAN 474. Contemporary Russian Literature

(3). May not be repeated for credit. Taught in English.

## RUSSIAN 477. Russian Culture and National Ideology

Permission of instructor. (3). May not be repeated for credit.

## RUSSIAN 491. Senior Honors Course

Consent of instructor required. Approval of departmental Honors Committee. (3). (INDEPENDENT). May be repeated for a maximum of 6 credits. Credit is granted for a combined total of six credits of RUSSIAN 491 and 492. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of RUSSIAN 492, the final grade is posted for both term's elections.

## RUSSIAN 492. Senior Honors Course

Consent of instructor required. Approval of departmental Honors Committee. (3). (INDEPENDENT). May be repeated for a maximum of 6 credits. Credit is granted for a combined total of six credits of RUSSIAN 491 and 492.

## RUSSIAN 499. Advanced Seminar in Russian

RUSSIAN 302 or 303, and 351. (3). May not be repeated for credit. Taught in Russian.

## RUSSIAN 551. Old Russian Literature

Permission of instructor. (3). May not be repeated for credit.
RUSSIAN 552. Russian Literature of the Eighteenth Century
(3). May not be repeated for credit.

Slavic Languages and Literatures (SLAVIC)

## SLAVIC 150. First Year Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May be repeated for a maximum of 6 credits.

## SLAVIC 151. First Year Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (4). (FYWR). May not be repeated for credit.

SLAVIC 225. Arts and Cultures of Central Europe
(3). (HU). (R\&E). May not be repeated for credit.

SLAVIC 240. Introduction to Slavic Folklore
(3). (HU). May not be repeated for credit.

## SLAVIC 260. Directed Reading in Slavic Studies

Consent of instructor required. (1-4). May be elected twice for credit.

## SLAVIC 261. Introduction to Baltic Cultures

(3). (HU). May not be repeated for credit.

SLAVIC 270 / JUDAIC 271. Contact and Conflict: Jewish Experience in Eastern Europe through Art, Film and Literature
(3). (R\&E). May not be repeated for credit.

SLAVIC 281 / JUDAIC 281 / NEAREAST 281. Jews in the Modern World: Texts, Images, Ideas
(4). (HU). (R\&E). May not be repeated for credit.

SLAVIC 290. Studies in Eastern European Cultures
(1 in the half-term). (HU). May be repeated for a maximum of 3 credits. May be elected more than once in the same term.

## SLAVIC 312 / RCHUMS 312. Central European Cinema

A knowledge of Russian is not required. (3). (HU). (R\&E). May not be repeated for credit. Taught in English.

SLAVIC 313 / RCHUMS 313 / SAC 313. Russian and Ukrainian Cinema
(3). (HU). May not be repeated for credit. F.

## SLAVIC 315. Field Work

Consent of instructor required. Native proficiency or course in Russian, Polish, Czech or Ukrainian language, literature, culture, or history. (1-3). (EXPERIENTIAL). May be repeated for a maximum of 6 credits. Offered mandatory credit/no credit.

SLAVIC 316 / RCLANG 333. RUSLAN Service Learning: Russian Language, Culture, and People in the U.S.

Native proficiency or one course in Russian language, literature, culture, or history. (3). (R\&E).
(EXPERIENTIAL). May be elected twice for credit. May not be repeated for credit.
SLAVIC 395 / HISTORY 332 / POLSCI 395 / REEES 395 / SOC 392. Russia and the Soviet Union: Reform, Revolution, and the Socialist Experiment
(4; 3 in the half-term). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor. F.

SLAVIC 396 / POLSCI 396 / REEES 396 / SOC 393. East Central Europe: Nationalism, Socialism, Democracy
(3-4). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor.
SLAVIC 450. Directed Readings in Slavic Studies
(1-4). (INDEPENDENT). May be elected twice for credit.
SLAVIC 470. Topics in Cultural Studies of Central, Eastern, and Southern Europe
(3). May be repeated for a maximum of 9 credits.

SLAVIC 471. Seminar in Cultural Studies of Central, Eastern and Southern Europe
(3). May be elected twice for credit. Rackham credit requires additional work.

SLAVIC 490. Issues in the Cultures of Eastern Europe
(1). May be repeated for a maximum of 3 credits. May be elected more than once in the same term.

Ukrainian (UKR)

## UKR 151. First-Year Ukrainian

(4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in UKR 103.

## UKR 152. First-Year Ukrainian

UKR 151. (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in UKR 103.

## UKR 251. Second-Year Ukrainian

UKR 152 or 103. (Prerequisites enforced at registration.) (4). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in UKR 203.

## UKR 252. Second-Year Ukrainian

UKR 251. (Prerequisites enforced at registration.) (4). (Lang Req). May not be repeated for credit. May not be repeated for credit. No credit granted to those who have completed or are enrolled in UKR 203.

## UKR 320. An Introduction to Ukrainian Poetry

Basic Ukrainian reading knowledge. (3). (HU). May not be repeated for credit. May not be repeated for credit.

## UKR 351. 3rd Year Ukrainian I

UKR 252 with a minimum grade of C. (Prerequisites enforced at registration.) (3). May not be repeated for credit. May not be repeated for credit.

## UKR 352. 3rd Year Ukrainian II

UKR 351 with a minimum grade of $C$. (Prerequisites enforced at registration.) (3). May not be repeated for credit. May not be repeated for credit.

## UKR 421. Directed Reading in Ukrainian Literature

Consent of instructor required. Open to non-concentrators. A knowledge of Ukrainian is not required. (14). (INDEPENDENT). May be repeated for a maximum of 8 credits.

## UKR 450. Internship in Ukraine

Consent of instructor required. UKR 152. (1 in the half-term). (EXPERIENTIAL). May be elected twice for credit. Offered mandatory credit/no credit. Rackham credit requires additional work.

UKR 470. Cultures of Ukraine
(3). May not be repeated for credit.

## Courses in LSA Sociology

Sociology (SOC)

## SOC 100. Introduction to Sociology

Restricted to first-year students, sophomores, and juniors. (Prerequisites enforced at registration.) Juniors and seniors electing an introductory course are strongly encouraged to elect SOC 300, although there is limited space available for upper-level students in SOC 100 and 102 in semesters in which SOC 300 is not offered. ( $4 ; 3$ in the half-term). (SS). May not be repeated for credit. No credit granted to students who have completed or are enrolled in SOC 195 or 300. May not be included in a Sociology major.

## SOC 102. Introduction to Sociology: Special Topics

Restricted to first-year students, sophomores, and juniors. (Prerequisites enforced at registration.) Juniors and seniors electing an introductory course are strongly encouraged to elect SOC 300, although there is limited space available for upper-level students in SOC 100 and 102 in semesters in which SOC 300 is not offered. (4; 3 in the half-term). (SS). May be repeated for a maximum of 8 credits. May not be included in a Sociology major.

## SOC 105. First Year Seminar in Sociology

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit. May not be included in a Sociology major.

## SOC 122 / PSYCH 122 / UC 122. Intergroup Dialogues

Consent of instructor required. (3). (R\&E). May be repeated for a maximum of 6 credits. May not be included in a major in Sociology. May not be used as a prerequisite for, or included in, a major in Psychology.

## SOC 195. Honors Introduction to Sociology

Open to first- and second-year students admitted to the LSA Honors Program. Other first- and secondyear students with a minimum GPA of 3.2 may enroll with permission. (4; 3 in the half-term). (SS). May not be repeated for credit. No credit granted to students who have completed or are enrolled in SOC 100 or 300. May not be included in a Sociology major.

## SOC 203. Sociology of Multiculturalism

(3). (SS). May not be repeated for credit.

## SOC 204. International Migration and the Politics of Membership in a Globalizing World

(3). (SS). May not be repeated for credit.

## SOC 206. Animals and Society

(3). (SS). May not be repeated for credit.

## SOC 207. Social Suffering

No credit for students who have previously taken SOC 295 Topics in Sociology with the topic "Soc of Suffering" (Topic \#11). (Prerequisites enforced at registration.) Introduction to Sociology. (3). (SS). May not be repeated for credit.

## SOC 210. Elementary Statistics

(4; 3 in the half-term). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in STATS 250, 280, or 412, or ECON 404 or 405, or IOE 265. Sociology majors should elect this course during their sophomore year. Honors majors should enroll in SOC 210, STATS 250 (350) or its equivalent prior to beginning the Honors course sequence in the winter term of the junior year.

## SOC 218 / UC 218. Foundations of Intergroup Relations

(3). May not be repeated for credit.

## SOC 220 / RCSSCI 220. Political Economy

(4). (SS). May not be repeated for credit.

## SOC 221 / AMCULT 221. Social Inequality

(4; 3 in the half-term). (SS). May not be repeated for credit.

## SOC 225. Practicum in Sociology

(2-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. May be elected more than once in the same term. A combined total of eight credits of SOC 225 (and 389), 321, 324, 394, 395, and 396 may be counted toward a major in Sociology. A maximum of four credits of SOC 225 (and 389) may be included in a major in sociology. Offered mandatory credit/no credit.

## SOC 230. Health and Population in South Africa

(4; 3 in the half-term). (SS). May not be repeated for credit.

## SOC 235. South Africa in Transition: Field Experience

Consent of instructor required. Enrollment is restricted to students who are enrolled in or have completed SOC 230 and have instructor permission. (2). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

## SOC 240. Sociology of Culture

(4; 3 in the half-term). (SS). May not be repeated for credit.
SOC 250. Politics, Power, and Society
(4; 3 in the half-term). (SS). May not be repeated for credit.

## SOC 255. Sociology of Music

One course in sociology or musicology, or extensive personal background in music. (3). (SS). May not be repeated for credit.

## SOC 260 / CMPLXSYS 260. Tipping Points, Bandwagons and Cascades: From Individual Behavior to Social Dynamics

(3). May not be repeated for credit.

## SOC 270 / WOMENSTD 270. Gender and the Law

(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

## SOC 295. Topics in Sociology

(1-4). (SS). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

## SOC 300. Sociological Principles and Problems

(3). (SS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SOC 100 or 195.

## SOC 302. Health and Society: An Introduction to Sociology

(4). (SS). May not be repeated for credit. No credit granted to those who have completed or enrolled in SOC 100, SOC 102, SOC 300.

## SOC 303 / AAS 303. Race and Ethnic Relations

An introductory course in Sociology or AAS 201. (4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.

## SOC 304 / AMCULT 304. American Immigration

One introductory course in Sociology or American Culture. (4). (SS). (R\&E). May not be repeated for credit.

## SOC 305. Introduction to Sociological Theory

At least one course in introductory sociology. (4; 3 in the half-term). May not be repeated for credit. It is highly recommended that sociology majors not elect both SOC 305 and SOC 310 in the same term.

## SOC 310. Sociological Research Methods

Sociology majors. (Prerequisites enforced at registration.) Sociology majors are strongly encouraged to elect SOC 310 in their junior year. Honor majors should elect this course prior to or concurrently with SOC 497 (the first required course in the Sociology Honors sequence). (4; 3 in the half-term). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed SOC 312. Meets the sociology Research Methods Requirement. It is highly recommended that sociology majors not elect both SOC 305 and SOC 310 in the same term.

SOC 313 / RCSSCI 301. Social Science Theory I: From Social Contract to Oedipus Complex
At least one 200-level social science course. (4). (SS). May not be repeated for credit.

## SOC 315. Economic Sociology

One introductory course in sociology, economics, or political science. (3-4). (SS). May not be repeated for credit.

## SOC 320 / PSYCH 310 / UC 320. Processes of Intergroup Dialogues Facilitation

Admission by application. Previous participation in UC 122/PSYCH 122/SOC 122 strongly encouraged. (3). (R\&E). May not be repeated for credit.

SOC 321 / PSYCH 311 / UC 321. Practicum in Facilitating Intergroup Dialogues
PSYCH 310/SOC 320 and permission of instructor. (4). (EXPERIENTIAL). May not be repeated for credit. A combined total of eight credits of SOC 225 (and 389), 321, 324, 394, 395, and 396 may be counted toward a major in Sociology.

## SOC 324 / PSYCH 324 / UC 324. Advanced Practicum in Intergroup Relations

Consent of instructor required. UC 320/PSYCH 310/SOC 320. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. A combined total of eight credits of SOC 225 (and 389), 321, 324, 394, 395, and 396 may be counted toward a major in Sociology.

## SOC 325. Sociology of Service Learning

Consent of instructor required. (4). May be elected twice for credit.

## SOC 344. Sociology of Families

One introductory course in Sociology. (4; 3 in the half-term). (SS). May not be repeated for credit.

## SOC 345 / WOMENSTD 348. Sociology of Sexuality

One introductory course in Sociology. (4; 3 in the half-term). (SS). May not be repeated for credit.

## SOC 346. Sociology of the Body

One introductory course in Sociology or Women's Studies. (3). May not be repeated for credit.

## SOC 350. Human Rights in the United Nations

One introductory course in sociology, political science, or other disciplines that examine human rights and globalization. (4). May not be repeated for credit.

## SOC 354. Law and Society

One introductory course in any social science discipline. (4). (SS). May not be repeated for credit. No credit for students who have taken SOC 454 prior to Fall 2013.

## SOC 368. Criminology

One introductory course in sociology. (4; 3 in the half-term). (SS). May not be repeated for credit.
SOC 375 / PSYCH 312 / UC 375. Intergroup Conflict and Coexistence: Religion, Ethnicity and Culture (3). May not be repeated for credit.

SOC 379 / GERMAN 379 / POLSCI 386. Sports, Politics, and Society
One introductory course in sociology or political science. (3). (SS). May not be repeated for credit. No credit for those who have completed SOC 212/GERMAN 212.

SOC 380 / ENVIRON 345 / POLSCI 331. Environmental Public Opinion Analysis
(3). (SS). May not be repeated for credit.

SOC 392 / HISTORY 332 / POLSCI 395 / REEES 395 / SLAVIC 395. Russia and the Soviet Union: Reform, Revolution, and the Socialist Experiment
(4; 3 in the half-term). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor. F.

## SOC 393 / POLSCI 396 / REEES 396 / SLAVIC 396. East Central Europe: Nationalism, Socialism, Democracy

(3-4). (SS). May not be repeated for credit. May not be counted in a Slavic Department academic minor.

## SOC 394. Undergraduate Research

Consent of instructor required. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. A combined total of eight credits of SOC 225 (and 389), 321, 324, 394, 395, and 396 may be counted toward a major in Sociology.

## SOC 395. Independent Study

Consent of instructor required. Enrollment requires departmental application and permission of supervising faculty. Students must have completed at least one introductory sociology course and one
sociology course at the 300 level or above to apply. (1-4). (INDEPENDENT). May be repeated for a maximum of 8 credits. May be elected more than once in the same term. A combined total of eight credits of SOC 225 (and 389), 321, 324, 394, 395, and 396 may be counted toward a major in Sociology.

## SOC 396. Undergraduate Internship

Consent of department required. Restricted to Sociology concentrators. (1). (EXPERIENTIAL). May be repeated for a maximum of 2 credits. May be elected more than once in the same term. A combined total of eight credits of SOC 225 (and 389), 321, 324, 394, 395, and 396 may be counted toward a major in Sociology. Offered mandatory credit/no credit.

## SOC 398. Professional Writing and Sociology

SOC 100 or SOC 102 or SOC 195 or SOC 300 completed with a minimum grade of $C$ - or better.
(Prerequisites enforced at registration.) Students should have taken an introductory sociology course (SOC 100, 102, 195 or 300) and at least 2 sociology electives. (3). May not be repeated for credit.

SOC 427 / ASIAN 459. Sociology of Contemporary Korea: Development, Globalization, and Identity (3). May not be repeated for credit.

## SOC 428 / ASIAN 490 / PUBPOL 428. Contemporary China

One introductory course in sociology. (3). May not be repeated for credit. Rackham credit requires additional work.

## SOC 429. Sociology of Japan

One introductory course in Sociology, Anthropology, Political Science, or Economics. (3). May not be repeated for credit.

## SOC 430. World Population Dynamics

(3). (QR/2). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SOC 530.

## SOC 434 / AAS 434. Social Organization of Black Communities

Introduction to SOC or introduction to AAS. (3). May not be repeated for credit.

## SOC 435. Urban Inequality and Conflict

One course in introductory sociology. (4; 3 in the half-term). May not be repeated for credit. No credit granted to students who are enrolled in or have completed SOC 535.

## SOC 447 / WOMENSTD 447. Sociology of Gender

One introductory course in sociology or women's studies. (3). May not be repeated for credit.

## SOC 451 / WOMENSTD 451. Women and Work

WOMENSTD 240 (or AMCULT 240) or SOC 100, and one other course in SOC or WOMENSTD. (3). May not be repeated for credit.

## SOC 455 / RELIGION 455. Religion and Society

One introductory course in sociology. (3). May not be repeated for credit.

## SOC 458. Sociology of Education

One introductory course in Sociology. (3). May not be repeated for credit.

## SOC 461. Social Movements

One introductory course in Sociology. (3). May not be repeated for credit.

## SOC 465 / PSYCH 488 / WOMENSTD 465. Sociological Analysis of Deviance

One introductory course in sociology. (4; 3 in the half-term). May not be repeated for credit.
SOC 471 / PSYCH 411 / UC 471. IGR Senior Capstone: Social Justice in the Real World Consent of instructor required. UC/SOC 320/321/PSYCH 310/311 or CASC Foundations and 2 related courses in social movements or activism. (3). May not be repeated for credit.

SOC 472 / PSYCH 381. Advanced Laboratory in Social Psychology
STATS 250 or 425 or MATH 425; and one of the following: PSYCH 111, 112, 114, or 115. (Prerequisites enforced at registration.) PSYCH 280. (3). May not be repeated for credit. Satisfies a Psychology researchbased laboratory requirement. F, W, Su.

## SOC 475. Introduction to Medical Sociology

One introductory course in sociology. (3). May not be repeated for credit.

## SOC 476. Sociology of Bioethics

One introductory course in sociology. (3). May not be repeated for credit.

## SOC 488. Organizing Internship

Consent of department required. (1). May not be repeated for credit. Offered mandatory credit/no credit.

## SOC 489. Organizing: People, Power, and Change

(3). May not be repeated for credit.

## SOC 490 / REEES 490 / WOMENSTD 492. Women and Islam: A Sociological Perspective

(3). May not be repeated for credit.

## SOC 495. Topics in Sociology

One introductory course in Sociology. (1-4;1-3 in the half-term). May be repeated for a maximum of 8 credits. May be elected more than once in the same term.

## SOC 497. Honors: Proposal Writing

Honors Sociology concentrators and [SOC 210 or STATS 350]. (Prerequisites enforced at registration.) (3). May not be repeated for credit. W.

## SOC 498. Honors: Data Collection and Analysis

SOC 497. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## SOC 499. Honors: Thesis Writing

SOC 498. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

## Courses in LSA Statistics

Statistics (STATS)
STATS 125. Games, Gambling and Coincidences
Enrollment restricted to first-year students, including those with sophomore standing. (3). (MSA). (BS).
(QR/1). May not be repeated for credit.

## STATS 150. Making Sense of Data

(3). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in SOC 210, IOE 265, STATS 250(350), 280, 400, 412, or ECON 404, ECON 405.

## STATS 180. AP Statistics

(3). (BS). May not be repeated for credit. Students proceeding to STATS 250 receive full credit for STATS 250 but lose their credit for STATS 180.

## STATS 250. Introduction to Statistics and Data Analysis

(4). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 451, IOE 265, or STATS 280 or STATS 412. Those with credit for STATS 250 receive no credit for STATS 180.

STATS 280. Honors Introduction to Statistics and Data Analysis
Pre-calculus. (4). (MSA). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 451, IOE 265, SOC 210, STATS 250 or STATS 412.

## STATS 299. Workplace Internship for Undergraduate Statistics Majors

Consent of department required. (1). (EXPERIENTIAL). May be elected twice for credit. Offered mandatory credit/no credit.

## STATS 401. Applied Statistical Methods II

MATH 115, and STATS 180, STATS 250, STATS 280, or STATS 412, or ECON 451, or NRE 438. (4). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in STATS 413.

## STATS 403. Introduction to Quantitative Research Methods

MATH 115, one of STATS 180, STATS 250, STATS 280, STATS 412 or ECON 451. (4). (BS). May not be repeated for credit.

## STATS 404. Effective Communication in Statistics

STATS 470 or 480. (2). (BS). May not be repeated for credit. May not be used in the Statistics or Applied Statistics academic minor. Rackham credit requires additional work.

## STATS 406. Introduction to Statistical Computing

STATS 401 AND MATH 215; or STATS 403 and MATH 215; or STATS 412; or MATH 425. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. F.

STATS 408. Statistical Principles for Problem Solving: A Systems Approach High school algebra. (4). (BS). May not be repeated for credit. No credit granted to those who have completed or are enrolled in STATS 170.

## STATS 412. Introduction to Probability and Statistics

Prior or concurrent enrollment in MATH 215. (3). (BS). (QR/1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in ECON 451 or 453 , STATS 280, or IOE 265 . One credit granted to those who have completed or are enrolled in STATS 250. May not be used in the Statistics or Applied Statistics academic minor. F, W, Sp.

## STATS 413. Applied Regression Analysis

[MATH 214, OR MATH 217 OR MATH 417] AND [(STATS 250 AND MATH/STATS 425) OR STATS 412 OR STATS 426]. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. No credit granted for those who have completed or enrolled in STATS 500.

## STATS 414. Special Topics in Statistics

Consent of department required. Varies by term and instructor. (3-4). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

STATS 415. Data Mining and Statistical Learning
MATH 215 and 217, and one of STATS 401, 406, 412 or 426. (4). (BS). May not be repeated for credit.

## STATS 425 / MATH 425. Introduction to Probability

MATH 215. (3). (BS). May not be repeated for credit. F, W, Sp, Su.

## STATS 426. Introduction to Theoretical Statistics

STATS 425 and prior or concurrent enrollment in MATH 217, 412 or 451. (3). (BS). May not be repeated for credit.

STATS 430. Applied Probability
STATS 425 or equivalent. (3). (BS). May not be repeated for credit.

## STATS 449 / BIOSTAT 449. Topics in Biostatistics

STATS 401, 403, or 425 or permission of instructor. (3). (BS). May not be repeated for credit.

## STATS 470. Introduction to the Design of Experiments

STATS 401 or 412 or 425, or MATH 425. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. F.

## STATS 480. Survey Sampling Techniques

STATS 401 or 412 or 425 or MATH 425. (Prerequisites enforced at registration.) (4). (BS). May not be repeated for credit. W.

## STATS 485. Capstone Seminar

Consent of department required. Prior or concurrent enrollment in STATS 426 and STATS 500. Restricted to Statistics concentrators in their final year of study. (3). (BS). May not be repeated for credit.

## STATS 489. Independent Study in Statistics

Consent of instructor required. (1-4). (BS). (INDEPENDENT). May be repeated for a maximum of 4 credits. May not be used in the Statistics or Applied Statistics academic minor.

## STATS 499. Honors Seminar

Consent of instructor required. Permission of departmental Honors advisor. (2-3). (BS). (INDEPENDENT). May not be repeated for credit. May not be used in the Statistics or Applied Statistics academic minor.

Continuing Course. $Y$ grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. F, W, Sp.

STATS 504. Statistical Consulting
STATS 401 or 500. (3). (BS). May be repeated for a maximum of 9 credits.
STATS 525 / MATH 525. Probability Theory
MATH 451 (strongly recommended). MATH 425/STATS 425 would be helpful. (3). (BS). May not be repeated for credit.

STATS 526 / MATH 526. Discrete State Stochastic Processes
MATH 525 or STATS 525 or EECS 501. (3). (BS). May not be repeated for credit.

## Courses in LSA Studies in Religion

Religion (RELIGION)
RELIGION 121 / NEAREAST 235. Introduction to the Tanakh/Old Testament
(3). (HU). May not be repeated for credit.

RELIGION 122 / NEAREAST 236. Introduction to the New Testament
(4; 3 in the half-term). (HU). May not be repeated for credit.
RELIGION 201 / NEAREAST 200. Introduction to World Religions: Near Eastern
(4; 3 in the half-term). (HU). May not be repeated for credit. F.
RELIGION 202 / ASIAN 220. Introduction to the Study of Asian Religions
(4). (HU). May not be repeated for credit.

RELIGION 204 / NEAREAST 216. Introduction to Islam
(4; 3 in the half-term). (HU). May not be repeated for credit. W.
RELIGION 223 / ASIAN 223. Krishna Speaks: Bhagavad-Gita
(3). (HU). May not be repeated for credit.

RELIGION 225 / ASIAN 225. Introduction to Hinduism: Origins and Development of Classical Hinduism (3). (HU). May not be repeated for credit.

RELIGION 230 / ASIAN 230 / PHIL 230. Introduction to Buddhism
(4). (HU). May not be repeated for credit.

RELIGION 231 / ASIAN 231. Introduction to Tibetan Buddhism
(4). (HU). May not be repeated for credit.

RELIGION 234 / ASIAN 234. Buddhism and Death
(3). (HU). May not be repeated for credit.

RELIGION 246 / ANTHRCUL 246. Anthropology of Religion
(4). May not be repeated for credit.

RELIGION 248 / ASIAN 248 / HISTORY 248. Jesus Comes to Asia: Conversion and its Consequences in Asia
(4). (HU). (R\&E). May not be repeated for credit.

RELIGION 258 / ENGLISH 258 / JUDAIC 258. The Bible as Literature
(3). (HU). May not be repeated for credit.

RELIGION 260 / HISTORY 269 / JUDAIC 260. Introduction to the Talmud and the Rabbis
(3). (HU). May not be repeated for credit.

RELIGION 262 / PHIL 262. Introduction to the Philosophy of Religion
(4; 3 in the half-term). (HU). May not be repeated for credit.

RELIGION 270 / NEAREAST 242. Introduction to Rabbinic Literature
(3). (HU). May not be repeated for credit. No credit granted to those who have completed or are enrolled in HJCS 470 or JUDAIC 470 or HJCS 570 or ACABS 570 or JUDAIC 570. Taught in English.

RELIGION 277 / JUDAIC 277 / NEAREAST 207. The Land of Israel/Palestine through the Ages (4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit. Taught in English.

RELIGION 280 / NEAREAST 238. The Historical Jesus in Christianity, Judaism, and Islam (4; 3 in the half-term). (HU). May not be repeated for credit.

RELIGION 296 / JUDAIC 296 / NEAREAST 255. Perspectives on the Holocaust
(4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.
RELIGION 303 / ASIAN 303. Religious Military Orders of the World (3). (HU). May not be repeated for credit.

RELIGION 305 / ASIAN 305. Religion and Violence in the Secular World (3). (HU). May not be repeated for credit.

RELIGION 307 / ASIAN 307 / HISTORY 308. Eat, Pray, Love: Devotional Traditions in South Asia ASIAN 220 or 225. (3). (HU). May not be repeated for credit.

RELIGION 319 / ASIAN 319. Spirits of Contemporary Japan in Popular Culture ASIAN 200. (3). (HU). May not be repeated for credit.

RELIGION 323 / ASIAN 325. Zen: History, Culture, and Critique
(4). (HU). May not be repeated for credit.

RELIGION 325 / ASIAN 324 / HISTORY 325 / MEMS 325 / NEAREAST 375. The History of Islam in South Asia
(4). (HU). (R\&E). May not be repeated for credit.

RELIGION 326 / CLARCH 327 / CLCIV 327 / NEAREAST 355. Jews in the Roman Mediterranean: Archaeology, Religion, and Culture
(3). (ID). May not be repeated for credit.

RELIGION 331 / ASIAN 331 / PHIL 331. Introduction to Indian Philosophy
One introductory course on Hinduism or Buddhism. (3). May not be repeated for credit.
RELIGION 337 / ASIAN 337. The Ramayana: Text and Context in an Indian Epic ASIAN 220 or ASIAN 206. (3). (HU). May not be repeated for credit.

RELIGION 346 / HISTART 346. The Moving Image in the Middle Ages
(3). (HU). May not be repeated for credit.

RELIGION 350 / NEAREAST 336. Early Christianity, 50-650 CE
(4; 3 in the half-term). (HU). May not be repeated for credit.
RELIGION 351 / ASIAN 350. Gods, Ghosts, and Gangsters: Popular Religion in China
(3). (HU). May not be repeated for credit.

## RELIGION 359 / NEAREAST 335. History and Religion of Ancient Judaism

(4; 3 in the half-term). (HU). May not be repeated for credit.
RELIGION 360 / RCHUMS 365. Experiences of Atheism: A History of Skepticism and Unbelief (3). (HU). May not be repeated for credit.

RELIGION 363 / NEAREAST 322. The Qur'an and Its Interpretations
No prior knowledge of Islam is necessary, although some knowledge of the Bible would be helpful. (3). (HU). May not be repeated for credit.

## RELIGION 380. Selected Topics

Only one course from RELIGION 380, 387, and 487 may be elected in the same term. (3). May be repeated for a maximum of 6 credits.

## RELIGION 381 / CLCIV 381. Magic and Witchcraft

(4). (HU). May not be repeated for credit.

RELIGION 382 / CLCIV 380 / HISTORY 381 / JUDAIC 380. Ancient Jewish History to 638 CE: From Israelite Origins to Islamic Conquest
(3). (ID). May not be repeated for credit. No credit granted for students who have taken both ACABS 322 and ACABS 326.

## RELIGION 387. Independent Study

Consent of instructor required. Only once course from RELIGION 380, 387, and 487 may be elected in the same term. (1-3). (INDEPENDENT). May be repeated for credit. F, W, Sp/Su.

## RELIGION 402. Topics in Religion

Junior standing or permission of instructor. (1-3; 2 in the half-term). May not be repeated for credit.
RELIGION 421 / AAS 421 / HISTORY 421 / LACS 421. Religions of the African Diaspora
(3). May not be repeated for credit. Rackham credit requires additional work.

RELIGION 448 / PSYCH 418. Psychology and Spiritual Development
One of the following: PSYCH 111, 112, 114, or 115, and permission of instructor. (3). May not be repeated for credit.

RELIGION 455 / SOC 455. Religion and Society
One introductory course in sociology. (3). May not be repeated for credit.
RELIGION 461 / NEAREAST 424. Islamic Intellectual History
Taught in English. (3). May not be repeated for credit.
RELIGION 464 / ASIAN 464 / HISTORY 470. From Mystic Saints to Holy Warriors: Islam in Southeast Asia
(3). May not be repeated for credit. Rackham credit requires additional work.

RELIGION 465 / NEAREAST 421. Islamic Mysticism: Sufism in Time and Space
(3). May not be repeated for credit. Taught in English.

RELIGION 467 / NEAREAST 422. Shi'ism: The History of Messianism and the Pursuit of Justice in Islamdom
Junior standing or permission of instructor. (3). May not be repeated for credit.
RELIGION 468 / CLCIV 466. Greek Religion
(3; 2 in the half-term). May not be repeated for credit.
RELIGION 469 / JUDAIC 468 / NEAREAST 456. Jewish Mysticism
(3). May not be repeated for credit. Taught in English.

RELIGION 471 / JUDAIC 467 / NEAREAST 476. Seminar: Topics in the Study of Judaism
(3). May be repeated for a maximum of 9 credits. May be elected more than once in the same term.

RELIGION 476 / CLCIV 476 / HISTORY 405. Pagans and Christians in the Roman World (4; 3 in the half-term). May not be repeated for credit.

RELIGION 478 / JUDAIC 478 / NEAREAST 455. Modern Jewish Thought
(3). May not be repeated for credit. Taught in English.

RELIGION 485 / ASIAN 485. Religion in China
Consent of instructor required. ASIAN 230 or permission of instructor. (3). May be repeated for a maximum of 6 credits.

RELIGION 487. Independent Study
Consent of instructor required. Only one course from RELIGION 380, 387 and 487 may be elected in the same term. (1-3). (INDEPENDENT). May be repeated for credit. F, W, Sp/Su.

RELIGION 488 / CLCIV 483 / NEAREAST 437. Christianity and Hellenistic Civilizations
(3). May not be repeated for credit.

RELIGION 496 / HISTORY 429 / NEAREAST 432 / WOMENSTD 471. Gender and Sexuality in Pre-Modern Islam
Students should preferably have had one course in Islamic Studies. (3). May not be repeated for credit. Taught in English.

## RELIGION 497. Senior Honors Thesis

Consent of instructor required. Open only to seniors admitted to the Honors concentration program with permission of instructor. (1-6). (INDEPENDENT). May be repeated for a maximum of 6 credits. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. F, W, Sp.

## Courses in LSA Sweetland Writing Center

Sweetland Center for Writing (WRITING)
WRITING 100. Transition to College Writing
(3). May be repeated for a maximum of 6 credits. Offered mandatory credit/no credit.

WRITING 119. Style and Editing for International Students
(1). May be elected three times for credit. Offered mandatory credit/no credit.

## WRITING 120. College Writing for International Students

(3). May be elected twice for credit. A maximum of two elections of ELI 120 and WRITING 120 is allowed.

## WRITING 200. New Media Writing

(3). May be elected three times for credit. May be elected more than once in the same term.

## WRITING 201. New Media Writing Mini Course

(1). May be elected three times for credit. May be elected more than once in the same term.

## WRITING 220. Introduction to the Minor in Writing

Consent of department required. (3). May not be repeated for credit.
WRITING 240. Academic Communication for International Students
(1). May not be repeated for credit.

WRITING 300. Seminar in Peer Writing Consultation
Application process and permission of department. (3). May not be repeated for credit.
WRITING 301. Practicum in Peer Writing Consultation
WRITING 300 or SWC 300. (Prerequisites enforced at registration.) (1). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

WRITING 302. Global Communication: Rhetorical Approaches to Multilingual Conversation
Consent of department required. (1). May not be repeated for credit.

## WRITING 303. Special Topics in Coaching Writers

(1). May be elected four times for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

WRITING 340. Advanced Writing for International Students: Vocabulary and Grammar in Context (3). May not be repeated for credit.

WRITING 350. Excelling in Upper-Level Writing
Upper-level transfer students concurrently enrolled in at least one course for which they write on a regular basis. (1). May be elected twice for credit. Offered mandatory credit/no credit.

WRITING 400. Advanced Rhetoric and Research
Completion of the First-Year Writing Requirement. (3). May not be repeated for credit.

## WRITING 410. Quantitative Analysis and Writing in the Disciplines

Completion of the First-Year Writing Requirement. (3). (QR/2). May be repeated for a maximum of 6 credits.

## WRITING 420. Minor in Writing Capstone

Consent of department required. Completion of WRITING 220 and a majority of course requirements for the Minor in Writing program. (3). May not be repeated for credit.

## WRITING 430. The Teaching of Writing

Consent of department required. (3). May not be repeated for credit. Rackham credit requires additional work.

## Courses in LSA UG: Curriculum Support

Applied Liberal Arts (ALA)
ALA 101. A User's Guide to the Liberal Arts
Students cannot enroll if they have completed UC 270, Topic Title "A User's Guide to Liberal Arts". (Prerequisites enforced at registration.) (1). May not be repeated for credit.

ALA 105. Digital Research: Critical Concepts and Strategies
(1). May not be repeated for credit. No credit granted to those who have completed or are enrolled in UC 170, UC 174, UC 175-176, or UC 177 or ALA 105. Offered mandatory credit/no credit.

## ALA 115. The Financially Savvy Student

Students cannot enroll if they have alreaday completed UC 170, Topic Title "The Financially Savvy Student". (Prerequisites enforced at registration.) (1 in the half-term). May not be repeated for credit. Offered mandatory credit/no credit.

ALA 125. Positioning Yourself for a Successful Internship
Consent of department required. (1 in the half-term). May not be repeated for credit. Offered mandatory credit/no credit.

## ALA 170. Applied Liberal Arts Topics

(1-3). May be elected four times for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

## ALA 225. Undergraduate Internship

Consent of department required. (1). (EXPERIENTIAL). May be repeated for a maximum of 2 credits. May be elected more than once in the same term. Offered mandatory credit/no credit.

## ALA 250. Topics in Critical Issues

Students cannot enroll if they have already completed 4 instances of ALA 250 or UC 270, Topic Titles Critical Issues in Education, Critical Issues in Health, Critical Issues in Sustainability, or Critical Issues in Detroit . (Prerequisites enforced at registration.) (1). May be repeated for a maximum of 4 credits. May be elected more than once in the same term.

## ALA 270. Applied Liberal Arts Topics

Students cannot enroll if they have already completed 4 instances of ALA and/or UC 270. (Prerequisites enforced at registration.) (1-3). May be elected four times for credit. May be elected more than once in the same term.

ALA 325. Advanced Undergraduate Internship Course
Consent of department required. (1). May be elected twice for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

## ALA 370. Applied Liberal Arts Topics

Students cannot enroll if they have already completed 4 instances of ALA and/or UC 370. (Prerequisites enforced at registration.) (1-4). May be elected four times for credit. May be elected more than once in the same term.

ALA 375. Skills for College, Career, and Beyond
Students cannot enroll if they have already completed UC 370, Topic Title Skills for College, Career, and Beyond. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

ALA 470. Applied Liberal Arts Topics
Students cannot enroll if they have already completed 4 instances of ALA and/or UC 370. (Prerequisites enforced at registration.) (1-4). May be elected four times for credit. May be elected more than once in the same term.

University Courses (UC)
UC 101 / NAVSCI 102. Seapower and Maritime Affairs
(2). May not be repeated for credit.

UC 102. Michigan Community Scholars Program: The Student in the University
Michigan Community Scholars Program participant. (1). May not be repeated for credit. F. Offered mandatory credit/no credit.

## UC 103. Michigan Community Scholars Program: Academic Decision Making

Admission to the Michigan Community Scholars Program. (1). May not be repeated for credit. Offered mandatory credit/no credit.

## UC 104. Introduction to Research

Participant in Michigan Research Community. (1). May not be repeated for credit. F.

## UC 105. Health Sciences Scholars Program: Perspectives on Health and Health Care

Restricted to students enrolled in the Health Sciences Scholars Program. (2). (ID). May not be repeated for credit.

UC 106. Perspectives on Health Care
Restricted to students enrolled in the Health Sciences Scholars Program. (2). (ID). May not be repeated for credit.

## UC 107. Women in Science and Engineering Residence Program Seminar

Participant in the WISE Residence Program. (1). May not be repeated for credit.

## UC 108. STEM Challenges/STEM Success

Completion of UC 107. (Prerequisites enforced at registration.) Participation in the WISE Residence Program. (1). May not be repeated for credit.

UC 109 / SI 106. Programs, Information and People
(4). May not be repeated for credit.

UC 110 / SI 110. Introduction to Information Studies
(4). (SS). May not be repeated for credit.

## UC 122 / PSYCH 122 / SOC 122. Intergroup Dialogues

Consent of instructor required. (3). (R\&E). May be repeated for a maximum of 6 credits. May not be used as a prerequisite for, or included in a major in Psychology. May not be included in a major in Sociology.

## UC 150. First-Year Humanities Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

## UC 151. First-Year Social Science Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (SS). May not be repeated for credit.

## UC 152. First-Year Natural Science Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (NS). (BS). May not be repeated for credit.

## UC 154. First-Year Interdisciplinary Seminar

Enrollment restricted to first-year students, including those with sophomore standing. (3). (ID). May not be repeated for credit.

## UC 163. Biotechnology and Human Values

First-year students only. (4). (NS). (BS). May not be repeated for credit.

## UC 170. UC Special Topics

(1-3). May be elected three times for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

## UC 178. Global Understanding

Consent of instructor required. (3). May be elected twice for credit. May be elected more than once in the same term.

UC 201 / AERO 201. U.S. Aviation History \& Its Development into Air Power
AERO 102/Permission of instructor. (1). May not be repeated for credit.
UC 202 / AERO 202. U.S. Aviation History \& Its Development into Air Power
Permission of instructor. (1). May not be repeated for credit.
UC 203 / MILSCI 201. Innovative Tactical Leadership
(1). May not be repeated for credit. Counts as credit toward LSA degree.

## UC 204 / MILSCI 202. Leadership in Changing Environments

Permission of professor. (1). May not be repeated for credit. Counts as credit toward LSA degree.
UC 205 / NAVSCI 203. Leadership and Management
NAVSCI 101,102 OR PI. (3). May not be repeated for credit.
UC 213. Entrepreneurial Creativity
(3). May not be repeated for credit.

UC 215 / SEAS 215. Contemporary Social Issues in Southeast Asia
(3). (SS). May not be repeated for credit.

UC 218 / SOC 218. Foundations of Intergroup Relations
(3). May not be repeated for credit.

## UC 227. Practicum

(1-3). (EXPERIENTIAL). May be elected three times for credit. Offered mandatory credit/no credit.
UC 250. Sophomore Humanities Seminar
Completion of FYWR. (3). (HU). May not be repeated for credit.
UC 252. Sophomore Natural Science Seminar
Completion of FYWR. (3). (NS). (BS). May not be repeated for credit.

## UC 254. Sophomore Interdisciplinary Seminar

Completion of FYWR. (3). (ID). May be elected four times for credit. May be elected more than once in the same term.

## UC 256. Twenty Two Ways

(3). (ID). May be elected twice for credit. May be elected more than once in the same term.

## UC 270. University Courses Special Topics

(1-3). May be elected four times for credit. May be elected more than once in the same term.

## UC 275. Global Intercultural Experience for Undergraduates

Consent of instructor required. (1-2). (EXPERIENTIAL). May be elected twice for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. Offered mandatory credit/no credit.

## UC 276. GIEU Leadership Seminar

Consent of instructor required. (2). (EXPERIENTIAL). May be elected twice for credit. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections. Offered mandatory credit/no credit.

## UC 280. Undergraduate Research

Consent of instructor required. First or second year standing. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits. Credit is granted for a combined total of 8 credits in any UROP research courses. Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term, the final grade is posted for both term's elections.

## UC 285. Introduction to Intercultural Study

Consent of instructor required. (1). (EXPERIENTIAL). May be elected four times for credit. Offered mandatory credit/no credit.

## UC 286. Engaged Learning Abroad

Consent of instructor required. Students must be concurrently enrolled in an off-campus field learning experience. (1). (EXPERIENTIAL). May be elected four times for credit. Offered mandatory credit/no credit.

## UC 287. Integrative Intercultural Study

Consent of instructor required. Immediate past participation in off-campus experiential field-learning opportunity. (1). (EXPERIENTIAL). May be elected four times for credit. Offered mandatory credit/no credit.

## UC 299. Directed Study

Permission of instructor. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.
UC 300. College Practicum
Consent of instructor required. (1-4). (EXPERIENTIAL). May not be repeated for credit. Offered mandatory credit/no credit.

UC 301 / MILSCI 301. Leading Small Organizations I
Permission of Army OEP chair. (2). May not be repeated for credit. Counts for credit toward LSA degree.

## UC 302 / MILSCI 302. Leading Small Organizations II

MILSCI 301/UC 301. (Prerequisites enforced at registration.) Permission of program chairman. (2). May not be repeated for credit. Counts as LSA credit toward LSA degree.

UC 309 / AERO 310. Air Force Leadership and Management
AERO 202/P.I. (3). May not be repeated for credit. Counts for credit toward LSA degree.
UC 310 / NAVSCI 310. Fundamentals of Warfare
Consent of instructor required. (3). May not be repeated for credit. (non-LSA credit).
UC 320 / PSYCH 310 / SOC 320. Processes of Intergroup Dialogues Facilitation
Admission by application. Previous participation in UC 122/PSYCH 122/SOC 122 strongly encouraged. (3). (R\&E). May not be repeated for credit.

UC 321 / PSYCH 311 / SOC 321. Practicum in Facilitating Intergroup Dialogues
PSYCH 310/SOC 320 and permission of instructor. (4). (EXPERIENTIAL). May not be repeated for credit.
UC 324 / PSYCH 324 / SOC 324. Advanced Practicum in Intergroup Relations
Consent of instructor required. UC 320/PSYCH 310/SOC 320. (1-4). (EXPERIENTIAL). May be repeated for a maximum of 8 credits.

## UC 325. IGR Directed Study

UC 324. (1-4). (INDEPENDENT). May be elected eight times for credit.

## UC 327. Advanced Practicum

(1-3). (EXPERIENTIAL). May be elected three times for credit. Offered mandatory credit/no credit.

## UC 370. UC Special Topics

(1-3). May be elected twice for credit.
UC 371. The Measure of Our Meals: Food Studies Research Methods
(3). (ID). May not be repeated for credit.

UC 375 / PSYCH 312 / SOC 375. Intergroup Conflict and Coexistence: Religion, Ethnicity and Culture (3). May not be repeated for credit.

UC 390. Disciplinary Study in a Second Language
Fourth-term language proficiency, and permission of instructor. (1). May be elected six times for credit. May be elected more than once in the same term.

## UC 399. Directed Study

Permission of instructor. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.
UC 401 / MILSCI 401. Leadership and Management
MILSCI 302 or UC 302. (Prerequisites enforced at registration.) Permission of chair of Army OEP. (2). May not be repeated for credit.

UC 402 / MILSCI 402. Military Professionalism and Professional Ethics
MILSCI 401/UC 401. (Prerequisites enforced at registration.) (2). May not be repeated for credit.
UC 403 / NAVSCI 402. Leadership and Ethics
NAVSCI 203. Non-ROTC students need permission of instructor. (2). May not be repeated for credit.
UC 406 / MUSMETH 406. Special Problems in Museum Methods
(3). May be elected twice for credit.

UC 410 / NAVSCI 410. Evolution of Warfare
Consent of instructor required. Completion of Naval Science 310 The Fundamentals of Maneuver Warfare. (3). May not be repeated for credit.

## UC 415. Methods in Research for the Natural Sciences

Consent of department required. (1). (BS). May be elected twice for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

UC 416. Methods in Research for the Social Sciences or Humanities
Consent of department required. (1). May be elected twice for credit. May be elected more than once in the same term. Offered mandatory credit/no credit. Rackham credit requires additional work.

## UC 421. Field Practicum in a University Setting

Consent of instructor required. (2). (EXPERIENTIAL). May be repeated for a maximum of 4 credits. Offered mandatory credit/no credit.

## UC 427. Capstone Practicum

(1-3). (EXPERIENTIAL). May be elected three times for credit. May be elected more than once in the same term. Offered mandatory credit/no credit.

UC 455. IMP Senior Seminar
Consent of department required. (3). May not be repeated for credit.

## UC 470. UC Special Topics

(1-3). May be elected twice for credit. Rackham credit requires additional work.
UC 471 / PSYCH 411 / SOC 471. IGR Senior Capstone: Social Justice in the Real World
Consent of instructor required. UC/SOC 320/321/PSYCH 310/311 or CASC Foundations and 2 related courses in social movements or activism. (3). May not be repeated for credit.

UC 499. Directed Study
Permission of instructor. (1-3). (INDEPENDENT). May be repeated for a maximum of 6 credits.
UC 500 / BIOMEDE 500. Biomedical Engineering Seminar
(1). (BS). May not be repeated for credit. This course has a grading basis of "S" or "U".

319 / College of Literature, Science, and the Arts

## Courses in LSA Women's Studies

Women's Studies (WOMENSTD)
WOMENSTD 119 / PSYCH 119. Gender, Sex, and Sexuality in Science and Medicine
First year students only. (Prerequisites enforced at registration.) (3). (NS). May not be repeated for credit.
WOMENSTD 150. Humanities Seminars on Women and Gender
Enrollment restricted to first-year students, including those with sophomore standing. (3). (HU). May not be repeated for credit.

WOMENSTD 152. Natural Sciences Seminar on Women and Gender
First year seminar. First year student only, including students with sophomore standing. (Prerequisites enforced at registration.) (3). (NS). (BS). May not be repeated for credit.

WOMENSTD 153. Interdisciplinary Seminar on Women and Gender
(3). (ID). May not be repeated for credit.

WOMENSTD 211 / HISTART 211. Gender and Popular Culture
(4). (HU). May not be repeated for credit. (Gender, Culture, and Representation).

WOMENSTD 212 / ANTHRCUL 212 / NURS 225. The Global HIV/AIDS Epidemic
(4). (SS). May not be repeated for credit.

WOMENSTD 213. Topics in Gender and the Humanities
(1-4). (HU). May not be repeated for credit.
WOMENSTD 220 / NURS 220. Perspectives in Women's Health
(3). (SS). (R\&E). May not be repeated for credit. (Gender and Health).

WOMENSTD 225 / PSYCH 225. Psychology of Human Sexuality
(3). May not be repeated for credit. Does not count as a breadth course for Psychology or BCN majors.

WOMENSTD 233 / AMCULT 233. Genes and Society: Comparative and International Perspectives (3). (ID). May not be repeated for credit.

WOMENSTD 235 / AMCULT 235 / ARABAM 235. From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
(4). (HU). (R\&E). May not be repeated for credit.

WOMENSTD 239 / AMCULT 239. Gender, Sexuality, and Health in America (3). (ID). May not be repeated for credit.

WOMENSTD 240 / AMCULT 240. Introduction to Women's Studies (4; 3 in the half-term). (HU). (R\&E). May not be repeated for credit.

WOMENSTD 242 / AMCULT 242. Gender Violence in a Global Context (4). (SS). (R\&E). May not be repeated for credit.

WOMENSTD 243 / AMCULT 243 / LATINOAM 243. Latina Women in the U.S. (3). (HU). May not be repeated for credit.

WOMENSTD 245. Introduction to Lesbian, Gay, Bisexual and Transgender and Queer Studies (4; 3 in the half-term). (ID). May not be repeated for credit. (LGBTQ and Sexuality Studies).

WOMENSTD 250. Race, Gender and Nation
(3). (SS). (R\&E). May not be repeated for credit.

WOMENSTD 253. Special Topics
(3-4; 3 in the half-term). May be repeated for a maximum of 7 credits. A maximum of seven credits of WOMENSTD 252 and 253 may be counted toward graduation.

WOMENSTD 257. Special Topics in the Social Sciences
(1-4). (SS). May be elected twice for credit.
WOMENSTD 258. Special Topics in Interdisciplinary Women's Studies
(1-4). (ID). May be elected twice for credit.
WOMENSTD 270 / SOC 270. Gender and the Law
(4; 3 in the half-term). (SS). (R\&E). May not be repeated for credit.
WOMENSTD 285 / ASIAN 285. Love and Intimacy in Asia
(3). (SS). May not be repeated for credit.

WOMENSTD 291 / PSYCH 291. Introduction to the Psychology of Women and Gender PSYCH 111, 112, 114, 115 or 116. (Prerequisites enforced at registration.) (4). (SS). (R\&E). May not be repeated for credit.

WOMENSTD 293 / AMCULT 293. 20th Century Writing by Women of Color
(3). (HU). May not be repeated for credit.

WOMENSTD 295 / AMCULT 295. Sexuality in Western Culture
(3). (SS). May not be repeated for credit.

WOMENSTD 296 / HISTORY 296 / PSYCH 296. Gender, Sex Differences, and Addiction: Girls Gone Wild (3-4; 3 in the half-term). (SS). May not be repeated for credit.

WOMENSTD 300. Men's Health
(3). (ID). May not be repeated for credit. (Gender and Health).

WOMENSTD 302 / ANTHRCUL 302 / HISTART 302. Sex and Gender in Japan
(3). (SS). May not be repeated for credit.

WOMENSTD 303 / CLCIV 303 / HISTORY 303. Roman Women
(3). (HU). May not be repeated for credit.

WOMENSTD 304 / AAS 304. Gender and Immigration: Identity, Race, and Place
(3). (SS). May not be repeated for credit.

WOMENSTD 307 / ANTHRCUL 327 / RCSSCI 327. Critical Theory in Medicine and Healing
One course in ANTHRCUL or RCSSCI or WOMENSTD 240 or WOMENSTD with an SS designation. (4). (SS). May not be repeated for credit.

WOMENSTD 313. Special Topics in Gender and the Humanities
(1-4). (HU). May be elected twice for credit.
WOMENSTD 314 / ENGLISH 314. Gender and Sexuality Studies in Literature
(3-4; 2-3 in the half-term). May be repeated for a maximum of 6 credits. May be elected more than once in the same term.

WOMENSTD 315 / ENGLISH 315. Women and Literature
(3-4; 3 in the half-term). (HU). May be repeated for a maximum of 6 credits.
WOMENSTD 316 / HISTORY 316 / MEMS 316. Women and Gender in Medieval Europe: 500-1500 One course in Women's Studies or History. (3). (SS). May not be repeated for credit.

WOMENSTD 317 / HISTORY 317 / MEMS 317. Women and Gender in Early Modern Europe, 1500-1800 At least one course in WOMENSTD or HISTORY. (3). (HU). May not be repeated for credit.

WOMENSTD 318. Women, Politics and Society in India
One course in Women's Studies or South Asian Studies. (3). May not be repeated for credit.
WOMENSTD 323 / AAS 323 / HISTORY 388. Black Feminist Thought and Practice
(3). May not be repeated for credit.

WOMENSTD 324 / ANTHRCUL 325. Childbirth \& Culture
Sophomore standing. (4). (SS). May not be repeated for credit. (Gender and Health).
WOMENSTD 327 / HISTORY 327. The History of Sexuality
(4; 3 in the half-term). (HU). May not be repeated for credit.
WOMENSTD 328 / AAS 328. Women, Agency and Sexual Safety
One course in WOMENSTD or AAS. (3). May not be repeated for credit.
WOMENSTD 330. Feminist Thought
WOMENSTD 240 or AMCULT 240; OR WOMENSTD 250. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

WOMENSTD 331. Feminist Theoretical Perspectives in Gender and Health WOMENSTD 220 Perspectives in Women's Health. (Prerequisites enforced at registration.) (3). May not be repeated for credit.

WOMENSTD 332 / ASIAN 342. Gender and Power in Southeast Asia
(3). (HU). May not be repeated for credit.

WOMENSTD 334 / HISTART 334. Women in the Visual Arts: Images and Image-Makers
One course in Women's Studies or History of Art. (3). (HU). May not be repeated for credit. (Gender, Culture, and Representation).

WOMENSTD 335. Gender and Globalization
WOMENSTD 240 or SOC 100. (3). May not be repeated for credit. (Gender in a Global Context).
WOMENSTD 336 / AAS 336 / HISTORY 336. Black Women in the United States, Part I: From the American Revolution through the Women's Era

AAS 201 (CAAS 201). (3). May not be repeated for credit. No credit granted to those who completed AAS 337 prior to Winter 2012.

WOMENSTD 341. Special Topics in LGBTQ Studies
WOMENSTD 240 or 245. (3-4). May be elected twice for credit. May be elected more than once in the same term.

## WOMENSTD 342. Special Topics in Gender and Health

WOMENSTD 220 or 240. (3-4). May be elected twice for credit. May be elected more than once in the same term. (Gender and Health).

WOMENSTD 343. Special Topics in Gender, Race, and Ethnicity in the U.S.
WOMENSTD 240. (3-4). May be elected twice for credit. May be elected more than once in the same term. (Gender, Race, and Ethnicity in the U.S.).

## WOMENSTD 344. Special Topics in Gender, Culture, and Representation

WOMENSTD 240. (3-4). May be elected twice for credit. May be elected more than once in the same term. (Gender, Culture, and Representation).

WOMENSTD 345. Special Topics in Gender in a Global Context
WOMENSTD 240 or AMCULT 240. (3-4). May be elected twice for credit. May be elected more than once in the same term. (Gender in a Global Context).

WOMENSTD 348 / SOC 345. Sociology of Sexuality
One introductory course in Sociology. (4; 3 in the half-term). (SS). May not be repeated for credit.
WOMENSTD 350. Nonprofit Management, Community Engagement, and Feminist Practice WOMENSTD 240 or AMCULT 240 or WOMENSTD 220 or NURS 220. (4; 3-4 in the half-term). (EXPERIENTIAL). May not be repeated for credit. (Practice Course). F.

## WOMENSTD 351. Leading Feminism

One course in Women's Studies. WOMENSTD 350 is recommended, but not required. (4; 3 in the halfterm). (EXPERIENTIAL). May not be repeated for credit. W.

WOMENSTD 352 / ASIAN 352. Gender, Sexuality, and Power in Premodern China
At least one course in Asian studies or Women's studies. (3). (HU). May not be repeated for credit.
WOMENSTD 354 / AAS 354 / HONORS 354 / RCHUMS 354. Race and Identity in Music
(3). (HU). (R\&E). May not be repeated for credit.

WOMENSTD 356 / AMCULT 331 / HISTORY 356. Health in America: Patterns, Experiences, and Inequalities
(3-4). (ID). (R\&E). May not be repeated for credit.
WOMENSTD 357. Feminist Practices in a Global Context
One course in Women's Studies. (3). (SS). May not be repeated for credit.
WOMENSTD 358. Selected Topics in Interdisciplinary Women's Studies
(1-4). (ID). May be elected twice for credit.

WOMENSTD 360 / AMCULT 342 / HISTORY 368. History of the Family in the U.S.
(4; 3 in the half-term). (ID). May not be repeated for credit.
WOMENSTD 363 / AMCULT 363 / ASIANPAM 363. Asian/Pacific Islander American Women (3). May not be repeated for credit. (Gender, Race, and Ethnicity in the U.S.).

WOMENSTD 365 / AAS 365. Global Perspectives on Gender, Health, and Reproduction One course in either Women's Studies or AAS. (3). (SS). May not be repeated for credit.

WOMENSTD 366 / AMCULT 366 / HISTORY 353. Sex and Sexuality in U.S. Popular Culture (3). (HU). May not be repeated for credit.

WOMENSTD 372 / HISTORY 372. Women and Gender in European History
(3). May not be repeated for credit.

WOMENSTD 375 / HISTORY 375. A History of Witchcraft: The 1692 Salem Trials in Historical and CrossCultural Perspective
(4). (HU). May not be repeated for credit.

WOMENSTD 376 / JUDAIC 376. Women and the Bible
(3). (HU). May not be repeated for credit. (Gender, Culture, and Representation).

WOMENSTD 377. Topics in Gender and Social Science
(1-4; 1-3 in the half-term). (SS). May be elected twice for credit. May be elected more than once in the same term.

WOMENSTD 381 / AAS 381 / ENGLISH 380. Intersections: Fictions and Feminisms of the African Diaspora
AAS 111 (CAAS 111). (3). May not be repeated for credit.
WOMENSTD 384. Independent Research
Consent of department required. WOMENSTD 240 and one additional Women's Studies course. (1-3). (INDEPENDENT). May be elected six times for credit.

WOMENSTD 385. Directed Reading
Consent of instructor required. WOMENSTD 240, and one additional Women's Studies course. (1-3). (INDEPENDENT). May be repeated for a maximum of 9 credits. (Reading/Research Course).

WOMENSTD 389. Junior Honors Seminar
Consent of department required. (3). May not be repeated for credit.
WOMENSTD 390 / AAS 390. Homophobia in the Black World One course in WOMENSTD or AAS. (3). May not be repeated for credit.

WOMENSTD 394 / PSYCH 394. Sex, Sexuality, and Public Policy
PSYCH 111 or any WOMENSTD course. (3). (SS). May not be repeated for credit.
WOMENSTD 400. Women's Reproductive Health
Upperclass standing. (3). May not be repeated for credit. (Gender and Health). W.

WOMENSTD 402. Gender and Health Policy
One course in Women's Studies. (3). May not be repeated for credit. Rackham credit requires additional work.

WOMENSTD 404 / HS 404. Gender Based Violence: From Theory to Action
(2-3). May not be repeated for credit.
WOMENSTD 405. Pharma, Pills, and Policy
WOMENSTD 220 or NURS 220. (3). May not be repeated for credit.
WOMENSTD 410. Reproductive Justice: Legal and Ethical Issues
WOMENSTD 220, 240, 270 or 400, or AMCULT 240 or NURS 220 or SOC 270. (3). May not be repeated for credit. Rackham credit requires additional work.

WOMENSTD 411 / AMCULT 411. Rednecks, Queers, and Country Music
One course in Women's Studies or American Culture. (3). May not be repeated for credit.
WOMENSTD 414 / ENGLISH 415. Studies in Women and Literature
(3). May not be repeated for credit.

WOMENSTD 421 / SM 421. Gender and Sport
(3). May not be repeated for credit.

WOMENSTD 422 / POLSCI 401. Feminist Political Theory
Junior standing. (3). May not be repeated for credit.
WOMENSTD 425 / AMCULT 425. Feminist Practice of Oral History
One course in WOMENSTD or AMCULT. (3). May not be repeated for credit. Rackham credit requires additional work.

WOMENSTD 428 / ANTHRCUL 428 / RCSSCI 428. Sex Panics in the US and UK since 1890
One course in WOMENSTD or ANTHRCUL or RCSSCI, SOC, or HISTORY. (3). May not be repeated for credit.
WOMENSTD 431. Advanced Topics in LGBTQ Studies
WOMENSTD 245 or 295. (3-4). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

WOMENSTD 432. Advanced Topics in Gender and Health
WOMENSTD 220 or NURS 220. (3-4). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

WOMENSTD 433. Advanced Topics in Gender, Race and Ethnicity in the U.S.
WOMENSTD 240. (3-4). May be elected twice for credit. May be elected more than once in the same term. Rackham credit requires additional work.

WOMENSTD 434. Advanced Topics in Gender, Culture, and Representation
WOMENSTD 240. (3-4). May be elected twice for credit. Rackham credit requires additional work.
WOMENSTD 435. Advanced Topics in Gender in a Global Context
WOMENSTD 240. (3-4). May be elected twice for credit. Rackham credit requires additional work.

WOMENSTD 438. Gender, Health, and Well-being in Africa
One course in Women's Studies. (3). May not be repeated for credit. Rackham credit requires additional work.

## WOMENSTD 440. Women's Studies Senior Capstone

Women's Studies majors with senior status. (Prerequisites enforced at registration.) (3). May not be repeated for credit. Interdisciplinary seminar required for all senior majors.

## WOMENSTD 441. Senior Honors Seminar I

Consent of department required. (1). May not be repeated for credit. Offered mandatory credit/no credit.

## WOMENSTD 442. Senior Honors Seminar II

Consent of department required. (1). May not be repeated for credit. Offered mandatory credit/no credit.
WOMENSTD 443 / AAS 443. Pedagogy of Empowerment: Activism in Race, Gender, and Health AAS 201, WOMENSTD 240 or 220, AMCULT 240, NURS 220. (3). May not be repeated for credit. (Gender and Health).

WOMENSTD 446 / ANTHRCUL 446. Sex and the City: Urban Geography and Sexual Locations At least one course in Anthropology, History, Women's Studies, Sociology, LGBTQ Studies, or Urban Studies/Urban Planning. (3). May not be repeated for credit.

WOMENSTD 447 / SOC 447. Sociology of Gender
One introductory course in sociology or women's studies. (3). May not be repeated for credit.
WOMENSTD 451 / SOC 451. Women and Work
WOMENSTD 240 (or AMCULT 240) or SOC 100, and one other course in SOC or WOMENSTD. (3). May not be repeated for credit. (Gendered Lives).

## WOMENSTD 452 / PSYCH 414. Sexuality and Science

One of: PSYCH 111 or PSYCH 112 or any WOMENSTD course. (Prerequisites enforced at registration.) (3). (BS). May not be repeated for credit. Rackham credit requires additional work.

## WOMENSTD 461 / SAC 461. Explorations in Feminist Film Theory

WOMENSTD 240 or AMCULT 240; and junior standing. (3). May not be repeated for credit. (Gender, Culture, and Representation).

WOMENSTD 465 / PSYCH 488 / SOC 465. Sociological Analysis of Deviance
One introductory course in sociology. (4; 3 in the half-term). May not be repeated for credit.
WOMENSTD 471 / HISTORY 429 / NEAREAST 432 / RELIGION 496. Gender and Sexuality in Pre-Modern Islam
Students should preferably have had one course in Islamic Studies. (3). May not be repeated for credit. Taught in English. (Gender in a Global Context).

## WOMENSTD 483. Special Topics

(3-4; 3 in the half-term). May be repeated for a maximum of 7 credits. May be elected more than once in the same term. A maximum of 7 credits of WOMENSTD 482 and 483 may be counted toward graduation.

## WOMENSTD 487 / NEAREAST 441. Gender and Society in Ancient Egypt

Some familiarity with Egypt is helpful. (3). May not be repeated for credit. (Gender in a Global Context).

## WOMENSTD 490. Honors Thesis

Consent of department required. (3). (INDEPENDENT). May not be repeated for credit.
(Reading/Research Course). Continuing Course. Y grade can be reported at end of the first-term to indicate work in progress. At the end of the second term of WOMENSTD 491, the final grade is posted for both term's elections. F, W, Sp, Su.

WOMENSTD 491. Honors Thesis
Consent of department required. (3). (INDEPENDENT). May not be repeated for credit.
(Reading/Research Course). F, W, Sp, Su.
WOMENSTD 492 / REEES 490 / SOC 490. Women and Islam: A Sociological Perspective
(3). May not be repeated for credit. (Gender in a Global Context).

WOMENSTD 494 / PSYCH 494. Adolescent Sexuality
(3). May not be repeated for credit. Rackham credit requires additional work.

WOMENSTD 496 / NEAREAST 433. Gender and Representation in the Modern Middle East (3). May not be repeated for credit. (Gender in a Global Context).

WOMENSTD 519 / AMCULT 519. Queer Women in the 20th Century
(3). May not be repeated for credit.


[^0]:    o AAS 247 / HISTORY 247: Modern Africa

[^1]:    Independent Studies (SAC 499) may not be used toward the minor.

