

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 U-M 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.

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. Interna-

tional 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.)

Students often elect a college course while in high school through a dual enrollment program. There are three situations where these courses will not transfer. Credit is not given when the course is taught with only high school students in the class; or where the course is used to meet the minimum academic requirement that the College expects of all new students (*e.g.*, four years of English); or where the credits are needed to meet the high school graduation requirements.

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-pre-evaluation.

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-of-residence 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 UM–Flint. In these cases, courses elected in LSA which duplicate the transfer courses are posted on the aca-

demical 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).

An official transcript 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 W(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 half-term)

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 three-week 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)

Students requesting changes must:

- (1). obtain a *Request for Late Drop* or *Late Add* form and *Election Worksheet* from 1255 Angell Hall;
- (2). complete both forms, stating the reason(s) for the drop or add;
- (3). obtain the instructor's recommendation and signature;
- (4). return the completed forms to 1255 Angell Hall.

All requests to add courses must be accompanied by an *electronic permission* entered by the department. Honors students follow the procedures established by the Honors Office; Residential College students follow RC procedures.

Students are encouraged to meet with an advisor to discuss the request and its impact on the student's program. In some instances, students may need an advisor's approval to drop the course.

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

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 9th 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) 764-0332. 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 with-

drawal. 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, an official transcript 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 college degree unless 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 so 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:

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 UM–Ann 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 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

Letter Grade	Honor Points
A+	4.0
A	4.0
A-	3.7
B+	3.3
B	3.0
B-	2.7
C+	2.3
C	2.0
C-	1.7
D+	1.3
D	1.0
D-	0.7
E	0.0

Pass/Fail

P (passed) credit, no honor points
F (failed) no credit, no honor points

Credit/No Credit

CR (credit) credit, no honor points
NC (no credit) no credit, no honor points

Satisfactory/Unsatisfactory

S (satisfactory) credit, no honor points
U (unsatisfactory) no credit, no honor points
(The S/U symbols are used by the School of Education.)

Withdrawal/Drop

W (official withdrawal) no credit, no honor points
ED (dropped unofficially) no credit, no honor points

(A notation of ED for a graded election has the same effect on the grade point average as does an E.)

Incomplete/Work In Progress

I (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 Audit (VI)

VI (Audit) no credit, no honor points

Miscellaneous Notations (NR, NG)

NR (no report) no credit, no honor points
NG (no grade reported) no credit, no honor points

A notation of P, F, CR, NC, S, U does not affect a student's term or cumulative grade point average. A notation of I, Y, NG or NR, 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.

*LSA Curriculum Committee approval is required to use a Y grade. See "Grading for a Two-Term Course (Y)" below.

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.

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 attend-

ing 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 or some Biological Sciences research courses) are approved as “two-term” sequences (approval has to be granted by the LSA Curriculum Committee). In these *specialty 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. Non-graded courses *may* be included in a distribution plan.
2. Pass/Fail courses *may not* be included in a major or in a minor.
3. 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.
4. 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.)
5. Classes at Camp Davis *may not* be elected on a Pass/Fail basis (effective Winter Term 2012 for Spring Term 2012 and thereafter).
6. *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.**
7. *The College holds students responsible for ensuring the accuracy and completeness of their class schedule.*
8. 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.
9. 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.
10. 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.
 11. 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.
 12. 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.
 13. 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.
 14. 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.
 15. Students who have transferred “non-graded” credit to the College must count that credit as part of the maximum 30 hours of “non-graded” 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.
 16. A student cannot choose to elect a course by the CR/NC and S/U grading patterns; the *optional* non-graded pattern is P/F.

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, laborato-

ry 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

If a course was taken in residence and a grade of A+ through C–, P, CR, 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 D+ through 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.

www.lsa.umich.edu/students/academicsrequirements/honorsawards

Departmental Awards

Awards that recognize superior academic performance in the major are described on the LSA website:

www.lsa.umich.edu/students/academicsrequirements/honorsawards/departmentawards

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 graded credits. All other grades must be P, S, or CR. 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, 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

Freshmen students in the top 5% of their school/college class are eligible for this honor if they have earned at least 14 graded credits at Michigan. Advanced placement credit does not disqualify a student for consideration of this award. Students who have previously earned credit at another institution of higher education are ineligible. A book with an inscribed nameplate is presented to each student; a notation is made on the student's transcript by the Office of the Registrar, and recipients of this award are invited to attend the annual 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 2014 were:

Highest Distinction:	3.931 – 4.000
High Distinction:	3.824 – 3.930
Distinction:	3.669 – 3.823

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 phibetakap@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 umphikappa-phi@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.lsa.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.lsa.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 self-discipline. 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 competi-

tive 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

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 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 unusual 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 half-term,
- 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 term and then request readmission through a written petition that must be submitted 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) 764-0332. 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.

Graduation Procedures

In order to be considered for graduation, every student must have an official academic degree audit. This audit informs students what degree requirements they have already fulfilled, and those that still need to be completed. Students should have their audit completed prior to registering for their last term of classes in order to ensure they are registering for the appropriate courses. To receive an audit, students pursuing an A.B., B.S., or B.S.Chem. degree must complete the following steps:

1. Apply for graduation by logging onto Wolverine Access. Go to Student Business, click on "Apply for Graduation," and follow the prompts. This is also where students verify their permanent address and specify how they want their name to appear on the diploma.
2. Have a release submitted for every major and minor the student has declared. A release is submitted after students meet with a department advisor to discuss what requirements they have met and how they are going to fulfill the remaining requirements. The department then forwards this information to the appropriate auditor's office.

Students pursuing a Bachelor in General Studies (BGS) do not need to have a release submitted. They only need to apply for graduation on Wolverine Access.

Students enrolled in the Residential College receive their audits from the Residential College. Students who are writing an Honors Thesis in any of their majors receive their audits from the Honors Program. All other students receive their audits from LSA Academic Auditors' Office.

Generally, audits are completed and e-mailed to students' umich.edu e-mail account within two weeks after the student has applied for graduation and all of the releases have been submitted. **It is important to read this audit carefully because the information within the audit will be used to clear students for graduation.**

The auditors will do a final audit on every student after all grades have been posted to the student's transcript to verify that the requirements are complete. Students who have completed all requirements will be emailed [verification of graduation](#) from the [Academic Auditors](#) as evidence that a degree will be awarded. These students will receive their diploma approximately 8 weeks after commencement. Students who have not completed the degree requirements by the end of the term for which they applied will be sent an e-mail and letter that states their remaining requirements. To be considered for a future graduation date, they will need to apply again in Wolverine Access and/or contact their appropriate auditing office.

A Commencement Program is published for the Spring and Winter [Commencement](#) ceremonies. This program includes the names of all LSA degree *candidates* for that graduation period. Because there is no Commencement ceremony in August, August candidates are listed in a separate section in both the May and December programs. To have their name in the book, students need to apply for graduation no later than five weeks after classes begin in the term they plan to graduate.

The LSA diploma displays the degree conferred (Bachelor of Arts, Bachelor of Science, Bachelor of Science in Chemistry, or Bachelor in General Studies). Majors and minors are not listed on the diploma unless a student receives Honors in a major through the Honors Program. All majors and minors are listed on the official transcript once the student graduates and the degree is posted. Students with multiple majors receive one degree and one diploma.

Students may complete a [second major](#) any time after graduation by registering as a non-degree candidate through the Admissions office. Once the requirements for the major are complete, the department advisor must submit an on-line *Major Release form* to the Academic Auditors so the second major can be added to the transcript. Students may not add, complete, or declare a minor after graduation. They also may not change their degree (*e.g.*, A.B. to B.S.) after graduation.

LSA Graduation Procedures:

www.lsa.umich.edu/students/gradprocedures

Commencement website:

www.umich.edu/~gradinfo

Honors Graduation Procedures

Honors students* who have completed 85 Credits Toward Program (CTP) should apply for graduation on Wolverine Access and submit *Major/Minor Release Forms* for each Major/Minor they have declared. ***ALL graduation materials (even non-Honors plan releases) should be submitted to the Honors Office.*** *Major/Minor Release Forms* must be submitted by a departmental advisor.

Once the online application and all release forms have been received, students will receive an email in approximately three weeks that states their progress toward degree requirements. Ideally, students will initiate this process in the term prior to their expected graduation date.

Additionally, all Honors seniors, including RC/Honors students, should submit an *Honors Graduation Information Form* to the Honors Office. This form is not required in order to graduate, but it informs the Honors Program of students' specific areas of research and is used for inviting graduates and their families to the Honors Graduation Ceremony. This form can be found on the Honors website: www.lsa.umich.edu/honors.

In order for the student's name to appear in the *Commencement Guide*, the online application needs to be completed no later than Oct. 15 or Feb. 15 the term the student plans to graduate. Attendance at a commencement (Honors or otherwise) does not confirm official graduation from the university. Degrees are not conferred until all final grades and credits are posted to the transcript and the Honors academic auditor verifies that all degree requirements are met. Degree conferral usually occurs one month after commencement. Students who do not complete degree requirements in the term they applied for will be notified about their outstanding degree requirements. Diplomas are sent approximately 8 weeks after commencement.

Students who drop or add majors and/or minors after they initially applied to graduate online should contact the Honors Auditor to be sure their graduation eligibility has not

changed. Students who need to change their graduation date in Wolverine Access must notify the Honors auditor.

Note for Residential College (RC)/Honors Students:
The RC will process your senior audit and graduation. However, as part of the Honors Program, you should also submit an Honors Graduation Information Form to the Honors Office at 1330 Mason Hall.

*With only a few exceptions, such as Math and Computer Science, graduation with Honors requires the successful completion of a Senior Honors thesis. If you are completing a thesis, even if you were *not* in the First & Second-year Honors Program, you are considered part of the Honors Program. Conversely, if you *were* in the First & Second-year Honors Program, but have decided against writing a Senior Honors thesis, please inform the Honors Program as soon as you have made this decision.

Second Bachelor's Degree

Individuals with a bachelor's degree who want to earn a second degree must obtain permission from the Office of Undergraduate Admissions. Normally, at least two calendar years must transpire between the awarding of the first baccalaureate degree and the beginning of the second baccalaureate degree program. Applicants must pursue an academic program significantly different from that of the first baccalaureate degree. Except in the case of joint degrees, the College does not award concurrent bachelor's degrees. For graduates of schools and colleges on the Ann Arbor campus, the two baccalaureate degrees should be different (for example, not two Bachelor of Arts or two Bachelor of Science degrees). The second degree program cannot be a BGS degree, and students whose first degree is the BGS degree are ineligible for a second Bachelor's degree.

Applicants who already have an LSA degree must earn at least 30 credits in residence in LSA beyond the credits required for the first degree, with at least 15 in the new field of

concentration. Graduates of another Ann Arbor unit must earn at least 30 credits while registered in LSA. The second program must include a minimum of 100 LSA credits. To be considered for admission to a second baccalaureate degree program, all applicants who have a baccalaureate degree from the Ann Arbor campus of the University of Michigan must have a 2.0 minimum grade point average.

Applicants whose first degree comes from any other institution (including UM–Dearborn and UM–Flint) will be required to complete at least 60 credits in residence at the Ann Arbor campus. The student must be registered in LSA for at least 30 credits beyond the credits required for the first degree. The second degree program must include a minimum of 100 LSA credits. To be considered for admission to a second baccalaureate degree program, applicants must have the same minimum grade point average as the College requires for students who transfer from other institutions.

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 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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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

Not a major. 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.lsa.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 African-descended 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.

1. Two courses at the 200 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 300 or 400 level (24 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.lsa.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 re-

quirements 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

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 concentrator.

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

Minor Program. 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 re-thinking 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.

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

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.

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 Breadth 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 select another 22 credits at the 200 level or higher. Students may use any class under American Culture's Ethnic Studies SUBJECT Codes to count toward the major (LATINOAM, ASIANPAM, NATIVEAM, ARABAM).

When appropriate, a course listed in another department may count for an elective course with permission of American Culture department advisor.

No more than 6 credits of directed readings/internships may be counted toward the major.

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 par-

ticular 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 4th-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.lsa.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.

Asian/Pacific Islander American Studies

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 200- and 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

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 at the 300-level 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 498 Capstone Seminar in American Culture, sections titled "Numbers and Stories in American Experiences" and "Race on the Internet"
 - 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 425 Internet, Society and the Law
- 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
- 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

Other courses as approved by the department advisor.

Latina/o Studies

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)

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,"
- "19th-Century Native American Literature,"
- "Contemporary Native American Literature,"
- "Contemporary Literature by Native Americans."

Anthropology

101 West Hall
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.

Roster of Anthropology courses, by subgroup

Biological Anthropology: ANTHR BIO 161, 168, 169, 297, 351, 360, 361, 362, 364, 365, 366, 368, 450, 451, 452, 460, 461, 462, 464, 465, 467, 468, 469, 470, 472, 473, 474, 475, 477, 478, 479

Anthropological Archaeology: ANTHRARC 180, 282, 283, 284, 285, 286, 292, 296, 380, 381, 382, 383, 385, 386, 388, 390, 394, 407, 442, 481, 482, 483, 484, 485, 486, 488, 489, 490, 491, 492, 493, 495

Cultural Anthropology

Introductory Courses: ANTHRCUL 101, 158, 222, 225, 226, 256, 272, 298, 299

Sociocultural Anthropology – Regional Courses: ANTHRCUL 202, 302, 305, 306, 309, 314, 315, 317, 319, 320, 323, 324, 346, 402, 403, 404, 405, 409, 410, 411, 412, 413, 414, 415, 417, 421, 422, 423

Sociocultural Anthropology – Theory/Method: ANTHRCUL 230, 327, 330, 331, 447

Sociocultural Anthropology – Topical Courses: ANTHRCUL 212, 232, 234, 246, 260, 310, 325, 326, 329, 332, 333, 334, 335, 336, 338, 339, 344, 345, 347, 349, 352, 355, 356, 357, 408, 416, 425, 427, 428, 429, 431, 436, 438, 439, 440, 445, 446, 450, 451, 453, 455, 457, 458, 459, 461, 462

Linguistic Anthropology: ANTHRCUL 272, 277, 299, 370, 371, 372, 373, 374, 375, 461, 464, 473, 474, 475, 477

Museum, Honors, Reading, Research, and Field Courses

ANTHRARC 258, 392, 398, 399, 400, 401, 480, 487, 494, 496, 497, 499

ANTHRBIO 371, 398, 399, 463, 471

ANTHRCUL 258, 300, 301, 398, 399, 499

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.lsa.umich.edu/anthro/undergraduates/advising

Anthropology

May be elected as a departmental major

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 (4)
- ANTHRARC 282 Aztec, Maya, and Inca Civilizations (4)
- ANTHRARC 285 Frauds and Fantastic Claims in Archaeology (4)

B. Biological Anthropology:

- ANTHR BIO 201 Introduction to Biological Anthropology (4)

C. Linguistic Anthropology:

- ANTHRCUL 272, Language in Society (4)
- ANTHRCUL 374 Language and Culture (4)

D. Sociocultural Anthropology:

- ANTHRCUL 222 The Comparative Studies of Culture (4)
- ANTHRCUL 226 Introduction to Historical Anthropology (4)
- ANTHRCUL 230 Fundamentals of Social Theory (4)
- ANTHRCUL 330 Culture, Thought, and Meaning (4)

The remaining credits are taken in the subfield of your choice with a minimum of five 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

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 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.

- ANTHRBI0 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 400-level 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, 474, 475, 476, 477, 479
2. *Ecology and behavior:*
ANTHRBIO 342, 361, 368, 373, 467, 468, 471, 472, 478
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, 475, 476, 479

* Courses taken as ANTHRBI0 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 listed under Sociocultural Anthropology-Theory/Method in the *LSA Course Catalog* or under Course Info at: www.lsa.umich.edu/anthro/undergraduates/courses/undergraduatecoursesinanthropology_ci.

- 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**
- One general introduction to anthropology; ANTHRCUL 101 is recommended.
 - ANTHRCUL 272.
 - At least three upper-level courses from those listed under Linguistic Anthropology in the *LSA Course Catalog* or under Course Info at:
www.lsa.umich.edu/anthro/undergraduates/courses/undergraduatecoursesinanthropology_ci.
- 3. Anthropological Archaeology**
- ANTHRARC 282.
 - ANTHRARC 385 or 386.
 - 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.
 - 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

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:

- ANTHRBIO 161.
- At least four upper-level courses in ANTHRBIIO, 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:

- ANTHRCUL 344, Medical Anthropology
- Choose **four courses** from the following list of area and topical courses:
 - ANTHRBIO 363, Genes, Disease, Culture
 - ANTHRBIO 364, Nutrition & Evolution
 - 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 352, Anthropology of the Body
 - ANTHRCUL 355/AAS 355/HISTORY 355, Health & Illness in African Worlds
 - ANTHRCUL 408/AAS 409, Maternal/Child Health & Environmental Pollution in Africa
 - 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
 - AAS 458, section subtitled "Gender, Poverty, and Health"
 - 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
 - WOMENSTD 483, section subtitled "Gender, Poverty, and Health"
- 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.lsa.umich.edu
e-mail: cyndia@umich.edu

Not a major

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

Professor Monica Ponce de Leon, Dean

Not a major

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 [see “Architecture (Joint Program in Liberal Arts and B.S. in Architecture)” under “Special Joint Degree Programs” on the LSA website].
- an undergraduate degree in LSA and a Masters in Architecture [see “Architecture (Joint Program in Liberal Arts and M.Arch. in Architecture)” on the LSA website].

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 pre-scheduled 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.li.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)
www.art-design.umich.edu
email: a&d@umich.edu
Professor Gunalan Nadarajan, Dean

Not a major

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 is an appropriate degree for students who want 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.]

Dual Admit. The Stamps School of Art & Design offers dual admission to entering students who wish to pursue two degree programs. Dual admission allows students the freedom and ease to explore the educational opportunities of more than one discipline beginning in their first year of enrollment.

Cross-Campus Transfer. The Stamps School of Art & Design requires that prospective cross-campus transfers meet first with the Admissions Coordinator for the School and then with the Associate Dean for Academic Affairs and Undergraduate Education for a portfolio review. Successful applicants will also have earned a cumulative GPA of 2.0 and at least 30 credits of coursework.

Asian Languages and Cultures (ALC)

6111 South Thayer Building
202 South Thayer Street
(734) 764-8286 (phone)
(734) 647-0157 (fax)
www.lsa.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 concentrate 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:	Suggested Fields of Study:	
Chinese Studies	Cultural Studies	Literature
Japanese Studies	Film	Performing Arts
Korean Studies	Gender Studies	Philosophy
South Asian Studies	History/Civilization	Religion
Southeast Asian Studies	Linguistics	Visual Culture

Prerequisites to the Major. One year (or first-year proficiency) of an Asian language taught in the Department of Asian Languages and Cultures.

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.

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 Seminar for Concentrators.
- (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 in the student's chosen field that are focused on a discipline rather than on Asia (*e.g.*, a student in the Japanese Studies submajor whose field is linguistics could elect the course LING 210, Introduction to Linguistic Analysis), or
- (2) courses in the student's chosen submajor, but outside the student's chosen field (*e.g.*, the same student could elect the course HISTORY 451, Japan Since 1700).

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, 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.

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

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 through 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.

Astronomy

830 David M. Dennison Building
500 Church Street
(734) 764-3440 (phone)
(734) 763-6317 (fax)
www.astro.lsa.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 awe-inspiring 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.

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

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. *Computing course.* One of EECS 183, ENGIN 101, or an equivalent computing course approved by the Astronomy department advisor]
2. Mathematics through MATH 216
3. PHYSICS 160/161 [or PHYSICS 140/141]
4. PHYSICS 240/241 or 260/261
5. PHYSICS 340/341 or 360/341

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.**
One 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.)

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

This major does not meet the requirements for a B.S. degree.

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.

- At least 3 credits of 100-level Astronomy, excluding ASTRO 183
- PHYSICS 139, or 140 and 141, or 160 and 161, or equivalent
- MATH 115 and 116, or 185 and 186, or equivalent.

Requirements for the Major.

A minimum of 28 credits, distributed as follows:

1. **Astronomy Core:** ASTRO 201 and 429.
2. ENGLISH 225
3. **Astronomy Electives.** 12 credits from: ASTRO 205, 206, 210, 220, 305, 361, 402, 403, 404, 405, 406, or 420; at least 3 credits must be at the 300-level or above.
4. 3 credits from:
 - AOSS 204, 320
 - ASTRO 204
 - EARTH 201, 204, 320, 325, 331, 351/451, 420, or 446
 - ENVIRON 209, 325
 - GEOG 201

5. **Elective.** 3 credits from:
- Any 300- or 400-level Astronomy course
 - HISTORY 300, 301
 - PHIL 322, 381, 420, 422, 423, 424, 427, 464
 - PHYSICS 411, 420, 424, 481
 - PUBPOL 481
 - WOMENSTD 484

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

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

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.

Prerequisites to the Minor:

1. Mathematics through differential equations: MATH 216 or its equivalent
2. PHYSICS 140/141, 240/241, and 340/341.

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

1. No more than two **Introductory Courses** from this group
 - a. Introduction to Astronomy and Astrophysics: ASTRO 201 (preferred) or 102.
 - b. Introduction to the Solar System: ASTRO 101.
2. **Core Courses:** at least two courses chosen from among: ASTRO 361, 402, 404.
3. **Electives:** Remaining credits can be selected from ASTRO 399, 401, 403, 405, 406, 427.

Interdisciplinary Astronomy

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. *Planetary Science:* ASTRO 101 or 115
2. *Astrophysics:* ASTRO 102, 104, 105, or 142
3. 6 credits from: ASTRO 201, 205, 210, or 220
4. 3 credits from: A 300 or 400-level Astronomy course, or one of the Earth and Environmental Sciences, Philosophy, or Physics courses allowed for credit toward the major in Interdisciplinary Astronomy.

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

Atmospheric, Oceanic and Space Sciences (AOSS)

Atmospheric, Oceanic and Space Sciences
College of Engineering
2204 Space Research Building
(734) 763-6234 (phone)
(734) 763-0437 (fax)
aoss.engin.umich.edu
e-mail: aoss-um@umich.edu

Not an LSA major

AOSS, 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 AOSS 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 compo-

nents. AOSS participates with the Department of Earth and Environmental Sciences to sponsor the major in *Earth Systems Science* (see Earth and Environmental Sciences' listing for a description of the program).

Although AOSS 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 Atmospheric, Oceanic, and Space Sciences 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 AOSS 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.

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)

www.biochem.med.umich.edu/biochem
e-mail: umbiochem@umich.edu

Not a major

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)

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

Douglas Lake Address

(May – August)
9133 Biological Road
Pellston, MI 49769-9133
(231) 539-8408 (phone)
(231) 539-8785 (fax)

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 eight-week 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. Meanwhile, please see below for an example of some of the courses typically offered at the station.

SPRING:

EEB 330 Biology of Birds
EEB 381 General Ecology
EEB 455 Ethnobotany

SUMMER:

BIOLOGY 482 Limnology: Freshwater Ecology
EEB 320 / ENVIRON 311 Rivers, Lakes, & Wetlands
EEB 348 / ENVIRON 348 Forest Ecosystems
EEB 381 General Ecology
EEB 390 Natural History & Evolution

EEB 400 Advanced Research in Biology (1-3 credits)
EEB 431 Biology of Animal Parasites (even years)
EEB 442 Biology of Insects
EEB 453 Field Mammalogy (even years)
EEB 457 Algae in Freshwater Ecosystems (even years)
EEB 486 Biology and Ecology of Fishes (odd years)
EEB 492 Behavioral Ecology (odd years)
EEB 556 Field Botany of Northern Michigan
EEB 700 Advanced Studies in Biology (1-3 credits)
ENGLISH 317 & 325 or ENVIRON 377 & 302 Environmental Writing & Great Lakes Literature
ENVIRON 370 / ARCH 423 / UP 423 Introduction to Urban and Environmental Planning

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.

Research Programs for Students

In addition to regular courses, the Biological Station offers a Research Experience for Undergraduates (REU) program. The REU program is an intensive nine-week program designed to provide hands-on experience and training in field biology and atmospheric science with all phases of research, including hypotheses formulation, data gathering, analysis, interpretation, and communication of scientific studies. Students receive a stipend.

Specialized Research Facilities

Specialized research facilities include a greenhouse and elevated carbon dioxide facility (open top chamber arrays for studying the responses of multiple trophic levels of terrestrial and aquatic ecosystems to elevated atmospheric CO₂), a soil biotron (a building built into the soil with 34 windows on the soil profile), an artificial stream facility on the east branch of the Maple River (water can be pumped out of the river to a concrete pad and distributed into small artificial streams in many ways), and stations for precipitation chemistry (NADP), ultraviolet monitoring (USDA UV-B), and mercury deposition.

A 31m tower was constructed in 1996 to study the atmospheric chemical and meteorological processes linked to tropospheric ozone and oxidant formation. Similarly in 1998 a 50m eddy flux tower was completed to study the movement of carbon dioxide and water in a forested ecosystem with continuous measurements of CO₂ and many environmental parameters. Specimen collections are available to researchers and are especially extensive in birds, fishes, insects, invertebrates and parasites, vascular plants, mosses and lichens.

Scholarships & Financial Assistance

The U-M Biological Station offers a wide range of scholarships and tuition support options to help qualified students who may need financial assistance. These include both merit-based and need-based awards.

We are committed to helping to make sure that students wanting to study at the station have an opportunity to do so. Please visit the UMBS website to learn about financial support options, or call the office at (734) 763-4461.

Program in Biology

1140 Undergraduate Science Building
204 Washtenaw Avenue
(734) 763-7984 (phone)
(734) 647-7892 (fax)
www.lsa.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.

Field of the major. 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

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; or BIOLOGY 162 or 163
- CHEM 210/211 and 215/216;
- MATH 115 and 116;

- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241.

Requirements for the Major. 30 credits distributed as follows::

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 (*) 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.
3. Select one course in EEB or MCDB at the 300- or 400-level (except EEB 302, MCDB 302 or 412).
4. Select additional BIOLOGY, EEB, or MCDB courses at the 200-level or above (except EEB 302, MCDB 302, or MCDB 412) to bring the credit total for the major to at least 30 credits. Two advisor-approved cognate courses may be used.
5. Three 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.

General Biology

May be elected as an interdepartmental major

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;
- CHEM 210/211 and 215/216;
- MATH 115 and 116;
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241.

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) 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 (*) 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.
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 “General Biology Cognate List.” 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. A list of these may be obtained from the Biology Office, 1111 Natural Science.

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

Plant Biology

May be elected as an interdepartmental major

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;
- CHEM 210/211 and 215/216;
- MATH 115 and 116;
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241.

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.
 - d. *Ecology and Evolution*: 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 the specialized course list (EEB 401, 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, BIOLOGY 262, EEB 302, MCDB 302, MCDB 412) 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; BIOSAT 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.lsa.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 co-sponsor 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 recommen-

dations 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

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 (Students who took BIOLOGY 162 or 163, or have AP credit for BIOLOGY 162 must take 17 credits), distributed as follows:

- Two courses chosen from among:
 - Ecology:* BIOLOGY 281
 - Genetics:* BIOLOGY 305
 - Biochemistry:* MCDB 310, or BIOLCHEM 415
 - Evolution:* EEB 390.
- One laboratory or field course in BIOLOGY, EEB, or MCDB at the 200-level 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.]*)
- One additional BIOLOGY, EEB, or MCDB course at the 300-level or above (except EEB 302, MCDB 302, or MCDB 412). A third course from Group One not used to satisfy Group One requirements may be used to satisfy this requirement.
- Elective courses in BIOLOGY, EEB, or MCDB to bring minor credits to at least 15 (17 for students who took BIOLOGY 162 or 163, or have AP credit for BIOLOGY 162).

Plant Biology

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; or BIOLOGY 162 or 163.

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

- (c). *Genetics:* BIOLOGY 305

- (d). *Biochemistry:* MCDB 310 or BIOLCHEM 415.

2. Select **one plant biology core course** from the following list BIOLOGY 230*; 255*; MCDB 321 (* indicates a lab course or course including a lab)

3. Select additional **plant biology minor electives** from the following list of courses encompassing plant ecology, biodiversity, evolution, structure and development, and physiology, to bring your credit hours to at least 17. 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):

- BIOLOGY 230*, 255*
- EEB 372*, 401, 412, 420, 436*, 459*, 463*
- MCDB 321, 401 (when topic is appropriate), 405, 430

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.lsa.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

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.

The major requires introductory courses in Mathematics, Physics, Chemistry and Biology, followed by specialized biophysics courses. In addition, participation in research is required, which allows students to explore cutting-edge biophysical research and gain valuable experience for a future career.

Gateway Courses. Recommended but not required: One or two of BIOPHYS 115, 116, 120.

Prerequisites to the Major.

- MATH 115, 116, 215, 216;
- CHEM 210 / 211, 215;
- PHYSICS 135 / 136 and 235 / 236 (or 140/141 and 240/241);
- BIOLOGY 162 or 171 or 172.

Requirements for the Major. A major in biophysics must include 32 credits:

1. **Core:** BIOPHYS 290, 370, 417, 450, 454, 495
2. **Outside Core:** BIOLOGY 305 and CHEM 351
3. **Electives:** One of BIOPHYS 430, 433, 435, 440, 463, MCDB 411. Other electives may be approved by a department advisor.
4. **Cognate:** One cognate course from PHYSICS 406, PHYSICS 453, CHEM 451 or BIOLCHEM 451, MCDB 427, MCDB 428, MATH 404, MATH 471, .
5. **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.

Honors Plan: 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.

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.

Biophysics Minor

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 340/341 or CHEM 210/211
2. BIOLOGY 305 or MCDB 310 or CHEM 451 (or BIOLCHEM 451)
3. BIOPHYS 290 or 430 or 440
4. BIOPHYS 370 or 417.

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 Business
701 Tappan Street
(734) 763-5796 (phone)
(734) 763-7804 (fax)
www.bus.umich.edu
e-mail: BusinessMinor@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.bus.umich.edu/Admissions/BBA/Whyross.htm)

or our cross-campus transfer page:

www.lsa.umich.edu/advising/academicplanning/crosscampustransfers/businesspreprofessionalundergraduateprogram_ci

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.*

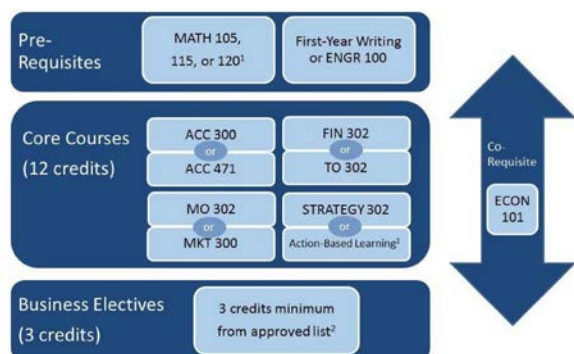
Courses in Business. Any undergraduate student may take business school courses without declaring the Minor in Business. However, students in the BBA program and students with a declared Minor in Business will have priority registration over other students.

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 pre-screening of applicants to verify eligibility, admission decisions will be based on a holistic review of the application



¹ The MATH 105, 115, or 120 prerequisite may be satisfied by AP, IB, A-Level, or upper level Calculus MATH courses at UM-Ann Arbor.

² Students will work with a Minor advisor in the Ross School of Business BBA Program Office to determine the appropriate Action-Based Learning and elective coursework.

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):
 - ES 395 Entrepreneurial Management (3)
 - ES 445 Base of the Pyramid – Business Innovation (3)
 - MKT 301 Strategic Marketing Planning (3)
 - MO 463 Leading Creativity and Innovation (3)
 - STRATEGY 392 Dynamic Capabilities Through Corporate Development (3)
 - STRATEGY 470 Strategic Management of Knowledge in Professional Service Firms (3)
 - TO 465 Business Systems Consulting (3)
 - 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)
- FIN 308 Capital Markets and Investment Strategy (1.5)
- FIN 309 Fixed Income Securities and Markets (1.5)
- FIN 314 Corporate Investment Decisions (3)
- FIN 317 Corporate Financing Decisions (3)

form, transcript, and 1-2 essays. Ross Undergraduate Admissions will

- FIN 320 Real Estate Fundamentals (1.5)
- FIN 321 Commercial Real Estate Finance (1.5)
- FIN 325 Entrepreneurial Finance (3)
- FIN 329 Financing Research Commercialization (3)
- FIN 334 Applied Quant/Value Portfolio Management (3)
- FIN 340 Financial Trading (1.5)
- FIN 380 Options and Futures in Financial Decisions (1.5)
- LHC 305 Legal Environment (3)
- LHC 306 Law of Enterprise Organization (3)
- LHC 309 Business Ethics & Accountability (1.5)
- LHC 310 Negotiation & Dispute Resolution (1.5)
- MKT 303 Brand Management (1.5)
- MKT 308 Pricing (3)
- MKT 311 Advertising Management (3)
- MKT 313 Consumer Behavior (3)
- MKT 318 Marketing Research and Analysis (3)
- MKT 325 New Product Management (3)
- MO 314 Managing Change (3)
- MO 315 Introduction to Managing Human Capital (3)
- MO 321 Leadership in Organizations (3)
- STRATEGY 310 The World Economy (3)
- STRATEGY 361 International Management (3)
- STRATEGY 390 Corporate Strategy (3)
- STRATEGY 411 Corporation in Society (3)
- STRATEGY 417 Behavioral Processes of Strategic Management (3)
- TO 311 Decision Support with Excel (3)
- TO 410 Supply Chain Management (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 Winter 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.bus.umich.edu/MyImpact/gateway/default.aspx?url=http%3A//www.bus.umich.edu/impact/CounselingCalendar/AcademicServices/,
or contact the Ross School of Business BBA Program Office at BusinessMinor@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.umich.edu/~michchem/undergrad/index.html

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. The department requires that a student earn a grade of at least C- in all CHEM courses and mathematics and physics courses which are prerequisite for subsequent elections. A grade point average in the major of at least 2.0 is required; this includes chemistry courses, mathematics and physics prerequisites and advanced electives which are part of a major. Pre-

requisites must be taken for a grade. Students must request any change in a grade before the end of the next regular academic term.

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, 116, 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.umich.edu/~michchem/undergrad/index.html

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, 116, 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.

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.umich.edu/~michchem/undergrad/index.html

Interdisciplinary Chemical Sciences (ICS)

May be elected as a departmental major

Exclusions. May not be elected by those pursuing 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 pre-health 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 and 116, 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 sub-plans 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.umich.edu/~michchem/undergrad/index.html

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 bio-

chemistry 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, 116, 215 (or the equivalent)
- PHYSICS [135/136 or 140/141] and [235/236 or 240/241].

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 studies in Biomedical or Health Sciences. Stu-

dents 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 for students with AP credit for CHEM 130, 125/126
- MATH 115 and 116 (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 26 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 Biol-

ogy, Neuroscience, Ecology and Evolutionary Biology, Plant Biology, and Microbiology.

Prerequisite to the Minor: MATH 115, or equivalent; PHYSICS 135, 140, or equivalent.

Requirements for the Minor: at least 18 credits of courses as follows:

1. CHEM 130* & CHEM 210/211.
2. *Electives:* CHEM 215/216, CHEM 241/242, CHEM 260, CHEM 302 or 303, CHEM 312 (2), CHEM 419 or 420, CHEM 402, CHEM 461.

*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.

Prerequisite to the Minor: MATH 115, or equivalent; PHYSICS 135, 140, or equivalent; BIOLOGY 172.

Requirements for the Minor: at least 18 credits of courses as follows:

1. CHEM 210/211, CHEM 215, CHEM 260 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 215, or equivalent; PHYSICS 235, 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 equivalent; PHYSICS 135, 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 equivalent; PHYSICS 135, 140, or equivalent.

Requirements for the Minor: at least 18 credits of courses as follows:

1. 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/lrccs
e-mail: chinese.studies@umich.edu

Not a major. 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.lsa.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

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 Honors plan requirements stated above, Honors candidates are required to take a minimum of eight credits in the second classical language (Greek if the major language is Latin; Latin if the major language is Greek).

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

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-level 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 Honors plan requirements stated above, Honors majors must achieve fourth-term language proficiency, as defined by the LSA language requirement, in either ancient Greek or Latin. Students must also take two upper-level cognate courses deemed relevant (at the discretion of the thesis advisor) to the subject of the Honors thesis.

Classical Languages & Literatures

May be elected as a departmental major

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. See *Ancient Greek Language and Literature* and *Latin Language and Literature*, below.

Requirements for the Major. The major requires study of both Greek and Latin; the student chooses one language as the major 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 major language at least 3 courses at the 400-level or above; 300-level courses count toward the major in the major language only.
2. In the minor language, at least one course at the 400-level or above.
3. Two courses selected from CLARCH (221 or 222), CLCIV (101, 102, or 302), or HISTORY (200 or 201).

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 Honors plan requirements stated above, Honors candidates must take one course, at or above the 450-level, in either Greek or Latin.

Greek (Ancient) Language & Literature

May be elected as a departmental major

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. Two courses selected from CLARCH 221, CLCIV 101, HISTORY 200.

Three credits of Independent Study (GREEK 499) may be used with written approval of the undergraduate advisor.

Honors Plan. In addition to the Honors plan requirements stated above, Honors candidates must take one course, at or above the 450-level, in Greek or Latin.

Latin Language & Literature

May be elected as a departmental major

Prerequisites to the Major. LATIN 194 or 232 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:
 - (a) LATIN 401 or 402;
 - (b) LATIN 409 or 410;
 - (c) another course from (a) or (b) or another course at the 400-level or above.
2. Two courses selected from CLARCH 222, CLCIV 102 and 302, or HISTORY 201.

Three credits of Independent Study (LATIN 499) may be used with written approval of the undergraduate advisor.

Honors Plan. In addition to the Honors plan requirements stated above, Honors candidates must take one course, at or above the 450-level, in Latin.

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

www.lsa.umich.edu/modgreek

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

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. At least one course must be selected in three of the areas listed below:
 - A. Classical Civilization
 - B. Byzantine History and Art
 - C. Anthropology
 - D. Political Science

Honors plan. Students holding a cumulative GPA of 3.5 and a GPA in the Modern Greek Studies major of 3.5, 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. In addition to the normal requirements for the major, students must complete an Honors Thesis and a reading list in their senior year.

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

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.
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.

Weinberg Institute for Cognitive Science

Weinberg Institute
440D Lorch Hall
611 Tappan Street
(734) 615-3275 (phone)
(734) 936-3406 (fax)
www.lsa.umich.edu/weinberginstitute
e-mail: cogsciprogram@umich.edu

Linguistics Department
440 Lorch Hall
611 Tappan Street
(734) 764-0353 (phone)
(734) 936-3406 (fax)
www.lsa.umich.edu/linguistics
e-mail: linguistics@umich.edu

Philosophy Department
2215 Angell Hall
435 South State Street
(734) 764-6285 (phone)
(734) 763-8071 (fax)
www.lsa.umich.edu/philosophy
e-mail: philosophy.staff@umich.edu

Psychology Department
1343 East Hall
530 Church Street
(734) 764-2580 (phone)
(734) 764-3520 (fax)
www.lsa.umich.edu/psych
e-mail: psych.saa@umich.edu

Cognitive Science is an interdepartmental institute jointly administered by the Departments of Linguistics, Philosophy, and Psychology, and supervised by the Cognitive Science Executive Committee.

Cognitive Science Executive Committee

Samuel Epstein (Professor, Linguistics), Director
Priti Shah (Professor, Psychology)
Chandra Sripada (Assistant Professor, Philosophy)

Cognitive Science

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.

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.

Special Program Policies

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 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.

Major Program.

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. EECS492 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
 - a. PHIL 409: Philosophy of Language
3. LING 347/PSYCH 349: Talking Minds

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 426/LING 426: Philosophy & Linguistic Theory
- PHIL 414: Mathematical logic
- 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:
- PHIL 303: Introduction to Symbolic Logic
 - 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 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 450: Philosophy of Cognition
- PHIL 443: Foundations of Rational Choice Theory
- 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 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: Psychology
- Decision and Cognition: Psychology
- Language and Cognition: Linguistics
- Philosophy and Cognition: Philosophy

Advising appointments can be made at:

https://webapps.lsa.umich.edu/AdvAppts/AA_StuSelfSvc1.aspx?ctgy=COGSCI or by contacting cogsciprogram@umich.edu

Communication Studies

5370 North Quad
105 S. State Street
(734) 764-0420 (phone)
(734) 764-3288 (fax)
www.lsa.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

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- or higher in each course **AND at least a 2.7 prerequisite grade point average** (43.2 honor points). 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
435 South State Street
(734) 763-2351 (phone)
(734) 764-8503 (fax)
www.lsa.umich.edu/complit
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 300-level 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. 100-level 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*.
- **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 3-credit 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)

321 West Hall
1085 South University Avenue
(734) 763-3301 (phone)
(734) 763-9267 (fax)
www.lsa.umich.edu/cscs
e-mail: cscs@umich.edu

Not a major

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 self-regulation, 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.

- CMLXSYS 270: Introduction to Agent-Based Modeling (ABM)
- CMLXSYS 281 / POLSCI 381: Applied Complex Systems: Emergent Challenges
- CMLXSYS 501: An Introduction to Complex Systems
- CMLXSYS 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
- CMLXSYS 470 / PHYSICS 470: Experiments in Nonlinear Dynamics
- CMLXSYS 520 / PHYSICS 580: Empirical Analysis of Non-linear Systems
- CMLXSYS 535 / PHYSICS 508: Network Theory
- CMLXSYS 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 / CMLXSYS 541: Introduction to Nonlinear Dynamics and the Physics of Complexity
- PHYSICS 470 / CMLXSYS 470: Experiments in Nonlinear Dynamics
- PHYSICS 508 / CMLXSYS 535: Network Theory
- PHYSICS 580 / CMLXSYS 520: Empirical Analysis of Non-linear Systems

II. Social Science

- CMLXSYS 250: Social Systems & Energy
- CMLXSYS 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 / CMLXSYS 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
- CMLXSYS 430 Modeling Infectious Diseases
- CMLXSYS 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 / CMLXSYS 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")
- CMLXSYS 501: Basic Readings
- CMLXSYS 520 / PHYSICS 580 / MATH 552: Empirical Analysis of Nonlinear Systems
- CMLXSYS 530: Computer Modeling of Complex Systems
- CMLXSYS 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 / CMLXSYS 520 / PHYSICS 580: Empirical Analysis of Nonlinear Systems
- MATH 559: Selected Topics in Applied Mathematics (section titled "Computation and Neuroscience")
- PHYSICS 580 / CMLXSYS 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)

1139 Angell Hall
 435 South State Street
 (734) 764-9128 (phone)
 (734) 763-6359 (FAX)
www.lsa.umich.edu/csp
 e-mail: cspinfo@umich.edu

Not a major

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, test-taking 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.

Earth and Environmental Sciences

2534 C.C. Little Building
1100 North University Avenue
(734) 764-1435 (phone)
(734) 763-4690 (fax)
www.lsa.umich.edu/earth
e-mail: EarthInfo@umich.edu

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*;
2. an *Earth Systems Science Major*;
3. *Honors Plans* in either of the above programs;
4. a *Teacher's Certificate Program*, for prospective science teachers who are candidates for a secondary teaching certificate in earth science and general science; and,
5. 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 by a program of writing that is explained in detail on the departmental web page: www.lsa.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 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
 - MATH 116 (Calculus II),
 - MATH 214 or 216 (Differential Equations),
 - CHEM 230 (Physical Chemistry) or 210/211 (Organic Chemistry and Lab), or
 - 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 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, 341, 380, 420, 442, 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.

Earth Systems Science

May be elected as a departmental major

Earth Systems Science is a departmental major designed to prepare students for graduate study in the Earth Sciences and for later professional work. This program of study is conducted in cooperation with the Department of Atmospheric, Oceanic and Space Science in the College of Engineering.

Each student majoring in Earth Systems Science may choose one of three options in which to specialize: Earth Science, Atmospheric Science, or Biogeochemistry. To ensure the breadth required by the science of the Earth's natural systems, each student must complete a minimum of ten courses distributed as follows:

1. Four core courses (MATH 216 and EARTH 320, 321, 409).
2. One class from each of the options, not included in (1).
3. At least three additional courses [not included in (1) and (2)] from any one of the options.

Prerequisites (should be completed as soon as possible):

1. Three terms of mathematics, ordinarily MATH 115, 116, 214 or 215.
2. One year of introductory physics with laboratory, ordinarily PHYSICS 140, 141, 240 and 241.
3. One term of introductory chemistry with laboratory, either CHEM 125 and 130 or CHEM 210 and 211.
4. At least one introductory course selected from:
 - EARTH 119 & 118, 116, 120, 171, 201, 202, 222/223, 284 & 118,
 - AOSS 171 or 202,
 - BIOLOGY 162 or 171 or 172.

Core courses: MATH 216; and EARTH 320, 321, and 409 (or AOSS 320, 321, and 410).

Earth Science Option. Choose among:

- ENVIRON 325, 341, 344, 380, 442, 479;
- EARTH 325, 341, 344, 380, 420, 421, 422, 442, 443, 446, 449, 452, 472, 477, 483.

Atmospheric Science Option. Choose among:

- AOSS 323, 350, 370, 380, 401, 411, 414, 420, 422, 440, 451, 475;
- ENSCEN 451, 475;
- EARTH 323, 350, 370, 381, 401, 411, 414, 423, 446, 454, 457, 475.

Biogeochemistry Option. Choose among:

- AOSS 467;
- BIOLOGY 445;
- CHEM 467;
- EEB 381, 445, 489;
- ENSCEN 467;
- ENVIRON 325, 381, 430, 435, 441, 467;
- EARTH 325, 445, 465, 473, 478, 479.
- NRE 430, 435, 441.

Honors Plan

The Honors plan consists of a series of special academic opportunities supplementary to any of the regular Majors 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 well-qualified 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 pre-law, 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

The Environmental Geology minor is not open to students with any other minor in the department of Earth and Environmental 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

The Oceanography minor is not open to students with any other minor in the department of Earth and Environmental 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

The Paleontology minor is not open to students with any other minor in the department of Earth and Environmental 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.lsa.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.lsa.umich.edu/biology/.

Field of Major and 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

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;
- CHEM 210/211 and 215/216;
- MATH 115 and 116;
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or PHYSICS 140/141 and 240/241.

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
- d. *Statistics or Biochemistry* (choose one course):
 - i. STATS 250, or
 - ii. One of the following: MCDB 310 or BIOLCHEM 415 or CHEM 351
- 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 (except EEB 300, 302, 397, or 400); **and,**
- b. EEB or MCDB 300-level or above (except EEB/MCDB 300, 302, 400, or 397 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 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. *Lab*: At least one course must include a lab
 [Note: EEB 372 cannot overlap with this requirement].
 (Note: A course taken at the U-M BioStation counts as a laboratory class.):
- BIOLOGY 207 (4) Introductory Microbiology
 - BIOLOGY 226 (2) Animal Physiol. Laboratory
 - BIOLOGY 230 (4) Introduction to Plant Biology
 - BIOLOGY 252 (4) Chordate Anatomy and Phylogeny
 - BIOLOGY 255 (4) Plant Diversity
 - BIOLOGY 288 (4) Introduction to Animal Diversity
 - BIOLOGY 482 (5) Limnology (Su at UMBS)
 - EEB 300 (3) Undergraduate Research
 - EEB 320 (4) Rivers, Lakes, and Wetlands (Su at UMBS: 5 cr.)
 - EEB 330 (5) Biology of Birds (Sp at UMBS)
 - EEB 341 (4) Parasitology
 - EEB 348 (5) Forest Ecosystems (Su at UMBS)
 - EEB 381 (5) General Ecology (Su at UMBS)
 - EEB 400 (3) Advanced Research
 - EEB 405 (5) Biological Station Special Topics (Su at UMBS)
 - EEB 431 (5) Ecology of Animal Parasites (Su at UMBS)
 - EEB 433 (4) Ornithology
 - EEB 436 (4) Woody Plants
 - EEB 437 (5) Biology of Invertebrates
 - EEB 441 (1) Biology of Fishes Laboratory
 - EEB 442 (4) Biology of Insects (Su at UMBS: 5 cr.)
 - EEB 450 (5) Biology of Amphibians and Reptiles
 - EEB 451 (4) Biology of Mammals
 - EEB 453 (5) Field Mammalogy (Su at UMBS)
 - EEB 455 (5) Ethnobotany (Sp at UMBS)
 - EEB 457 (5) Algae in Freshwater Ecosystems (Su at UMBS)
 - EEB 459 (4) Systematic Botany
 - EEB 463 (3) Neotropical Plant Families
 - EEB 468 (4) Biology of Fungi
 - EEB 474 (5) Wetlands Ecology (Su at UMBS)
 - EEB 477 (5) Laboratory in Field Ecology
 - EEB 483 (3) Limnology: Freshwater Ecology
 - EEB 484 (3) Limnology Laboratory
 - EEB 486 (5) Biology and Ecology of Fishes (Su at UMBS)
 - EEB 489 (3) Soil Ecology
 - EEB 496 (3) Applied Population Ecology
 - EEB 532 (3) Birds of the World
 - EEB 556 (5) Field Botany of Northern Michigan (Su at UMBS)
 - MCDB 300 (3) Undergraduate Research
 - MCDB 306 (3) Introductory Genetics Laboratory
 - MCDB 308 (3) Developmental Biology Laboratory
 - MCDB 400 (3) Advanced Research

- MCDB 413 (3) Plant Molecular Biology Laboratory
- MCDB 419 (3) Endocrinology Laboratory
- MCDB 423 (3) Cellular and Molecular Neurobiology Laboratory
- MCDB 429 (3) Cell and Molecular Biology Laboratory

- c. *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
- See more information on Program in Biology undergraduate research: www.lsa.umich.edu/biology/studentresearch

4. Additional Courses.

Additional courses at the 200-level or above (except EEB/MCDB 302 or MCDB 412) as needed to bring the major total to 30 credit hours; this may include up to two approved cognate courses. Prerequisites and introductory science courses are excluded.

COGNATE OPTIONS:

Anthropology

ANTHRBIO 365 Human Evolution
 ANTHRBI0 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

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. *Three additional credits of MCDB/EEB 300/400 (taken in one term) may be applied under Additional Courses for a maximum of six independent research credits.*

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

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)
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

Multiple requirements may be satisfied by one course.

Economics

238 Lorch Hall
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 short- and 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.lsa.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. One of the Honors alternatives to MATH 115 may be substituted for MATH 115. 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 with a serious interest in the study of economics are strongly encouraged to continue the study of calculus beyond MATH 115. MATH 116, 215, and 217, or their Honors alternatives, are recommended for students with an interest in quantitative economics. 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:

- ECON 401, completed with a minimum grade of C– or better
- ECON 402, completed with a minimum grade of C– or better

ECON 401 should be elected before ECON 402.

2. Core Statistics and Econometrics:

- STATS 250 or 426, or ECON 451, or ECON 453; completed with a minimum grade of C– or better
- ECON 251, or ECON 452, or ECON 454; completed with a minimum grade of C– or better

Students with a serious interest in economic research should elect the advanced sequence, ECON 453 and 454. These courses aim to develop deep, foundational understanding of the empirical methods used in economics. 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 or minor in economics are urged 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 outside 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.

Honors Plan. 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 ECON 451 and 452, or ECON 453 and 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.

Minor Program. 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.

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. ECON 401 should be taken before ECON 402.

Electrical Engineering and Computer Science

Computer Science and Engineering Division
2808 Bob and Betty Beyster Building
2260 Hayward
(734) 763-6563 (phone)
(734) 773-1260 (fax)
www.cs.umich.edu
e-mail: cslsadvisor@umich.edu

Electrical and Computer Engineering Division
3310 EECS Building
1301 Beal Avenue
(734) 763-2390 (phone)
(734) 763-1503 (fax)
www.eecs.umich.edu/ece/
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: cslsadvisor@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 pre-major 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.

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.

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

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 482, 483, 484, 487, 490, 492, and 493.

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 non-LSA 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 Core	Path Preparation Core	Elective (1)	Elective (2)
1. Systems	215	216	451, 455, 460	451, 452, 455, 460, 461 (no duplicates)
2. Electromagnetics & Optics	215	230	330, 334	411, 430, 434, 438, 530
3. Circuits & Solid State	215	270	311, 312, 320	411, 413, 414, 420, 421, 423, 425, 427, 429
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.lsa.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.

The English Department Writing Program. The English Department Writing Program is dedicated to the teaching of writing, particularly at the 100- and 200-level. Our courses aim to prepare all students to write effective analytic arguments that matter to them and to their audience in whatever academic and professional fields they choose to pursue; to read and analyze complex texts critically; and to develop flexible and appropriate strategies for revising academic writing to strengthen the development of ideas and hone the appropriateness of expression. In our creative writing courses, students also have the opportunity to explore the creation of fiction and poetry. Over the course of the academic year, we teach approximately 6700 students from across the university.

The English Department Writing Program administers ENGLISH 124, 125, 223, 225, 229, 230, 325, and 425 and in many cases students fulfill their Upper-Level and First-Year Writing Requirements in our courses.

New England Literature Program (NELP)

NELP is a University of Michigan academic program that takes place off campus during the Spring half-term. U-M faculty and other instructors teach the courses, and students earn regular U-M credit.

The program takes place at Camp Wohelo on Sebago Lake in Maine. For six and a half weeks, 40 students and 13 U-M instructors live and work together closely, reading New England authors, writing, and exploring the New England countryside, its people, culture, and history.

Academic Program. NELP students earn 8 hours of credit. Although NELP's academic work is taught as a single integrated academic experience, the credits appear on transcripts as three separate courses:

- ENGLISH 473 Topics in American Literature (3 cr.)
- ENGLISH 317 Literature and Culture (2 cr.)
- ENGLISH 328 Writing and the Environment (3 cr.)

The program emphasizes the writings of Nathaniel Hawthorne, Ralph Waldo Emerson, Henry David Thoreau, Emily Dickinson, Frederick Douglass, Sarah Orne Jewett, Robert Frost, Wallace Stevens, Carolyn Chute, Louise Glück, as well as other 18th- through 20th-century writers of various backgrounds.

NELP offers creative writing workshops, but most writing is done in a journal. Journal writing is required and is central to NELP education. The journals are both personal and academic. Student writing often explores creative expression, the natural world and the New England environment, and the writer's response to the NELP experience.

NELP courses are graded. The academic program requires completion of a reading list, active work in the journal, and vigorous participation in classes and in the journal group.

Who Can Apply? All University of Michigan students are eligible to apply for NELP, as are special students, international students, and students from other colleges. Some seniors participate in NELP after they graduate from U-M. You need not be an English concentrator to apply.

Application. Applications for NELP are due to the English Department in early January, usually during the first week of Winter Term, along with a \$35 non-refundable application fee. At that time, all applicants sign up for a 20-minute interview with two NELP staff members, to be held later in the month. Applicants who will not be on-campus in January can arrange for a phone interview and to submit their applications electronically.

Cost. Exact costs and detailed financial aid information will be provided in acceptance letters. There are two costs for attending NELP:

1. The NELP program fee, which covers transportation, textbooks, food and lodging for the duration of the program, will most likely be \$2200.
2. Spring half-term U-M tuition rates are set by the University. Out-of-state students should note the reduction in the cost of out-of-state tuition for students at NELP (made possible by a special arrangement with the College).

For further information and to download the brochure and application, visit the program website: www.lsa.umich.edu/english/nelp

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 17th c. through early 19th 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 concentrator. 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. Concentrators 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

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:

- three courses on literature written primarily before 1830, at least one of which must be on literature written primarily before 1600
- one course in American literature
- a poetry course
- one course designated "New Traditions"

New Traditions Requirement. English majors will take at least one upper-division course that focuses on work by North America and/or British writers/artists of color, world Anglophone writer/artists of a range of identity categories (involving gender, sexuality, disability, and class) who reflect upon – and are in dialogue about – the differentials of social power and their representation

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.lsa.umich.edu/english/undergraduate/courses/
or from an English department advisor.

Concentrators should note that no more than one course 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 300- or 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 the one s/he is majoring in.

English Language Institute (ELI)

555 South Forest Avenue
 (734) 764-2413 (phone)
 (734) 763-3876 (fax)
www.lsa.umich.edu/eli
 e-mail: eli-information@umich.edu

Not a major

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 non-credit 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 non-academic 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

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 offered by the College of Literature, Science, and the Arts (LSA) and the School of Natural Resources and Environment (SNRE). This collaborative venture includes courses taught by faculty in SNRE as well as courses taught by faculty in various departments of LSA and in other schools and colleges. The resulting curriculum presents an expanded range of opportunities for students interested in environmental careers. It draws upon SNRE's history as a leader in environmental and natural resource education and LSA's strength in the liberal arts. The program is housed in the Undergraduate Science Building (USB) and many of its classes and activities are held in the Dana Building, the home of SNRE.

The Program in the Environment attempts 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 emphasizes the natural sciences and social sciences but requires one course in the humanities, broadly construed, in recognition of the importance of humanistic and cultural perspectives in environmental education. 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**. Concentrators 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.

AAS	322, 332, 396, 477
ARCH	423
ECON	309, 330, 360, 370, 471, 472
EDCURINS	382
EHS	588
ENVIRON	211, 222, 302, 306, 312, 313, 335, 336, 345, 350, 360, 361, 365, 367, 370, 375, 382, 391, 395, 396, 449, 475, 477
HBEHED	580
NRE	336, 475, 477, 495, 571, 583
POLSCI	380
PSYCH	384, 385
RCIDIV	391
RCSSCI	222, 271
SOC	222, 330
UP	423

[These courses do not necessarily satisfy the SS distribution requirement.]

Culture and Environment Courses for the major and the minor.

AMCULT	373
ANTHRBIO	361

ARCH	423
ANTHRCUL	256, 356 (section subtitled "Ethnography of the Great Plains")
ECON	491
ENVIRON	256, 301, 304, 320, 350, 370, 376, 377
HISTART	301
HISTORY	285, 373, 491
ITALIAN	310
PHIL	355, 361, 366
UP	423

The Environment

May be elected as an interdepartmental major

The major in Environment is intended to ensure base 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 in some way to the environment.

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):

- Introductory Interdisciplinary Course** (one of the following):
 - 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
- BIOLOGY 162 OR 163 OR 171, OR 100 & 111 (Introductory Biology)
- CHEM 130 (General Chemistry)
- ENVIRON 118&119 / EARTH 118&119 or ENVIRON 116 / EARTH 116 (Introduction to Geology)
- ECON 101 (Principles of Economics I) or ENVIRON 211 (Social Sciences and Environmental Problems)
- MATH 115 (Calculus I)

Requirements for the Major. A minimum of 32 credits required.

- 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.
 - Analytics:** one course from STATS 250 (or 350), 265, 400, 405, 412; ECON 404, 405; or IOE 265.
 - 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
 - Environmental Social Science:** Two courses chosen in consultation with the department advisor. One course must be at the 300 level or above.
 - 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.lsa.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.lsa.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.

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 off-campus internship that results in academic credit.
 2. **Analytics.** The analytics requirement may be satisfied by electing STATS 250 (or 350) or equivalent (STATS 265, 400, 405, or 412; ECON 404 or 405; 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 pre-approved in at least three of five areas. Courses with em-

phasis 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
- CMLPLSYS 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
- 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.

Sustainable Food Systems Interdisciplinary Minor

The “Food Systems 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, from the following categories as stated:

D. Natural Sciences & Public Health

- AAS 409/ANTHCUL 408: Maternal/Child Health and Environmental Pollution in Africa
- ANTHCUL 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

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. **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"
AND
RCIDIV 318 / EEB 318 / ENVIRON 318, "Food, Land, and Society"

C. **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"

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.

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

Not a major

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.

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.

Advising: Advising appointments can be scheduled online at www.ii.umich.edu/ces-euc/academics/europeanstudiesminor.

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.lsa.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 upper-class concentrator living in the Max Kade Residence.

German

May be elected as a departmental major

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.lsa.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.

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

Not a major

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

Not a major

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 its 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 dip-

lomats 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 non-profit 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

Not a major

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).

Yiddish

Not a major

There is no major in Yiddish, but students can select courses from the beginning level, YIDDISH 101-102, through 301-302, as well as a Yiddish literature course in English translation (JUDAIC 333).

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.lsa.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, johanna@umich.edu

German Studies

Not open to student electing a major in German

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.

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

Not a major

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 pro-

jects 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.

Global Change Program

2534 C.C. Little Building
1100 North University Avenue
(734) 764-1435 (phone)
(734) 763-4690 (fax)
globalchange.umich.edu
e-mail: globalchange@umich.edu

Not a major

Global Change represents one of the most pressing scientific and societal issues of our times. When one contemplates the phrase "global change," topics such as global warming, human population, biodiversity, water resources and the ozone hole come to mind, but also natural phenomena like earthquakes, volcanoes, and extreme weather increasingly affect our lives. Every day, the activities of billions of humans are altering the planet on which we live. Over the past century, through our ever-increasing population and mastery of technology, humans are changing the global environment at a pace unknown to natural history. The prospects of global warming, environmental degradation, and rapid population growth today constitute a series of changes that may drastically alter our way of life, and could even threaten the very survival of the human species.

Understanding the underlying processes of global change is one of the challenges facing us today. Since our world is increasingly pervaded, shaped and influenced by science and technology, all students require a knowledge of the natural world, the processes of science and social science, and an understanding of the role of human activity in shaping our world. Furthermore, since global change affects the citizens and the policy makers of every nation, there is a growing need for scientists working in the area of global change to learn to communicate their findings to the public and translate them into programmatic documents useful to policy makers.

The University of Michigan's Global Change Curriculum is a modern approach in undergraduate natural and social science education, offering an interdisciplinary, introductory course sequence that investigates the causes and potential impacts of global change, from physical and human perspectives, using a combination of traditional lecture-based and modern computer-based teaching methodologies, and hands-on exercises. Theoretical background, case studies, and computer simulations are used to explore various conditions for sustainability. These courses are aimed at first- and second-year students who want to understand the historical and modern aspects of Global Change, and paths to sustainability.

In order to develop our understanding of the processes that sustain life on Earth, it is necessary to draw on the knowledge and viewpoints of several schools and departments at the University of Michigan, including the Departments of Anthropology, Biology, Earth and Environmental Sciences, Sociology in the College of LSA, the Department of Atmospheric, Oceanic and Space Science in College of Engineering, the School of Natural Resources and Environment, and the Ross School of Business.

Global Change Minor

A minor in Global Change is not open to students pursuing a minor or major in Biology, Plant Biology, Ecology and Evolutionary Biology, or Environment, nor to students in the School of Natural Resources and Environment.

Students wishing to pursue a minor in Global Change must develop a specific plan for its completion in consultation with Prof. Ben van derPluijm (e-mail: vdpluijm@umich.edu) of the Program in the Environment.

The minor in Global Change provides a broad understanding of the problems and challenges that humanity faces as it wrestles with the urgent need to develop a more sustainable relationship with the Earth and its resources, the complex issues involved in global change and global sustainability, as well as exposure to some of the approaches and strategies for effective economic development and resource management.

Details at: globalchange.umich.edu/globalchange_minor

Prerequisites to the Minor: None.

Requirements for the Minor: Five courses totaling at least 17 credits, to be chosen from the following three categories as stated:

1. **Global Change:** ENVIRON 110 and 111.
2. **One 200-level course** from the four below:
 - ANTHRCUL 256/ENVIRON 256
 - BIOLOGY 281/ENVIRON 281
 - EARTH 284/ENVIRON 284
 - ENVIRON 270
3. **Two 300- or 400-level courses** from two of the areas of Biosphere, Geosphere, and Sociosphere that are selected in consultation with the Program Director. Example courses:
 - A. Biosphere
 - BIOLOGY 482
 - EEB 320, 381, 390, 436, 451, 455, 476, 481, 483, 498
 - ENVIRON 311, 381, 436, 451, 453, 476
 - NRE 436, 451, 453, 476
 - B. Geosphere
 - AOSS 300, 467, 475
 - CHEM 467
 - EARTH 325, 341, 380, 442, 446, 465, 475, 477, 478
 - ENVIRON 325, 341, 380, 442, 467, 479
 - ENSCEN 467, 475
 - C. Sociosphere
 - ARCH 423
 - ECON 471, 472
 - ENVIRON 312, 360, 361, 370, 391
 - NRE 571, 583
 - POLSCI 380
 - PSYCH 384, 385
 - RCIDIV 391
 - SOC 305, 330
 - UP 423, 532

One Field Studies course (Biological Station or Camp Davis) may be substituted, where appropriate.

Contact the Program Director for approval of Category 3 electives.

History

1029 Tisch Hall
435 South State Street
(734) 764-6305 (phone)
(734) 647-4881 (fax)
www.lsa.umich.edu/history
e-mail: umhistory@umich.edu

History

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. Three- and 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 concentrator 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 two-part 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.** One of the ten courses for the major must be a junior-senior history colloquium (HISTORY 396 or HISTORY 397). Colloquia are offered each semester on a wide range of topics.

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 the 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 398, the Junior Honors Colloquium.

Members of the Honors Program must fulfill all the usual requirements for major in History. The two Honors courses they are required to take, HISTORY 398 (4 credits) and HISTORY 399 (6 credits), count toward the fulfillment of these requirements. Completion

of the HISTORY 398-399 Honors sequence also satisfies the "colloquium" requirement for history major, described above.

HISTORY 398, the Junior Honors Colloquium, provides a rigorous introduction to historical research in general and Honors thesis topics and research in particular. During this course students must arrive at a topic and obtain an advisor for their senior Honors thesis. This course also provides intensive training in writing and generally satisfies the ULWR requirement. Students are expected to achieve at least a B+ in this course in order to go on to the Senior Honors Colloquium.

HISTORY 399, the Senior Honors Colloquium, is a faculty-led, year-long writing workshop that includes all seniors writing Honors theses. Although the thesis is written primarily under the guidance of the faculty advisor, students help one another with projects in the workshop by sharing experiences, advice, interests, and, ultimately, portions of their theses. Completed theses, which must be submitted in late March, usually range anywhere from 60 to 100 pages. They are evaluated by the advisor and one or more other faculty, on the basis of the quality of the research, analysis, and writing. The letter grade for HISTORY 399 and the level of Honors with which the student will be graduated (*i.e.*, "Honors," "High Honors," "Highest Honors") are based on the evaluations of the thesis. Theses handed in more than two weeks past the due date are not eligible for an Honors rank.

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.lsa.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.lsa.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.

History Minor

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.

History minors must be planned with a department advisor.

Prerequisites to the Minor: None.

Requirements for the Minor: Six courses (at least 17 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 five of these six courses must be at the 200-level or above; at least three 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 six 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

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 6 courses and 20 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.** Four additional courses (a minimum of 3 credits each for at least 12 credits), including two from a designated cluster, 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. 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 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 209 / MEMS 209: The West in the World, 300-1648
- 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 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 20th 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 445: Topics in History, section titled "Debating Capitalism"
- HISTORY 477: Law, History, and the Dynamics of Social Change, section titled "Gender, Sexuality, and International Human Rights"

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 231: Social Science Topics in History, section titled "Global Environmental History"
- HISTORY 232: Interdisciplinary Topics in History, section titled "Mental Health in Global History"
- HISTORY 234: History of Medicine in the Western World from the 18th 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 / CLCV 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, 1775-2005
- 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: Five of the six 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 Medicine and Health Minor

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.

Prerequisites to the Minor: None

Requirements for the Minor: 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.

Five additional courses (at least 15 credits), to be chosen in consultation with a faculty advisor. At least two of the five 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.
- The fifth course can be either from the approved list or another general history course (a minimum of four and maximum of five additional courses from the Medicine and Health 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" or "Sexually Transmitted Diseases from Syphilis to AIDS"
 HISTORY 339 / ASIAN 365 / CLCIV 339: Doctors in the Ancient World
 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 396: History Colloquium, section titled "Medicine and Health in U.S. Culture since 1875"
 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: Five of the six 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

A minor in Religion is not open to students with any major or any other minor in the Department of History.

Corequisites to the Minor: HISTORY 105 (Introduction to Religion).

Requirements for the Minor: Five additional courses (at least 15 credits), to be chosen in consultation with a faculty advisor, covering at least two of the following religious traditions – Christianity, Judaism, Islam, Buddhism, Hinduism – or another religious tradition approved by a faculty adviser. Two of these courses must be from an approved list of classes from another department (excluding courses cross-listed with HISTORY). At least two of these five courses must be at the 300-level or higher.

History Department Courses in Religion

200-level

HISTORY 213 / MEMS 213: The Reformation
 HISTORY 230: Humanities Topics in History, section titled "Angels and Demons in Early Christianity"
 HISTORY 248 / ASIAN 248 / RELIGION 248: Jesus Comes to Asia
 HISTORY 256 / JUDAIC 265: Intro to Jewish Law
 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 4th to the 18th Century
 HISTORY 290 / JUDAIC 290: Jews and Muslims

300-level and above

HISTORY 308 / ASIAN 307: Eat, Pray, Love: Devotional Traditions in South Asia
 HISTORY 324: Muslims in Contemporary Europe
 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 421 / AAS 421 / LACS 421 / RELIGION 421: Religions of the African Diaspora
 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 481: Topics in European History, section titled "Spirituality & Madness: Religious Women"
 HISTORY 489: The History of the Roman Catholic Church 1775-2005
 HISTORY 497: History Colloquium, section titled "Crusade and Jihad"

Non-History Department Courses Approved for the Religion Minor

African and African American Studies

AAS 206: Issues in African Studies: African Christianities
 AAS 358: Topics in Black World Studies, section titled "Urban Religion in the African Diaspora"

Anthropology

ANTHRUCUL 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 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 325 / RELIGION 323: Zen: History, Culture, and Critique

ASIAN 326: Introduction to Japanese Buddhism

ASIAN 331 / PHIL 331 / RELIGION 331: Introduction to Indian Philosophy

ASIAN 333: Sacred Collectives: Nation and Religion in South Asia

ASIAN 430: Philosophy of the Sikh Gurus

ASIAN 439 / HISTART 492: Himalayas: An Aesthetic Experience

ASIAN 464 / RELIGION 464: From Mystic Saints to Holy Warriors: Islam in Southeast Asia

Classical Studies

CLCIV 347 / RELIGION 347: Roman Religion from the Archaic Period to Late Antiquity

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 349 / THREMU 323: American Theatre and Drama, section titled "Sex and Religion in Early English Drama"

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 of Art

HISTART 285 / AAPTIS 285: Visual Culture Islam

HISTART 304 / ASIAN 304: The Art of Yoga

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

HISTART 492 / ASIAN 439: Himalayas: An Aesthetic Experience

History

MEMS 355 / HISTART 355: The Miraculous and the Diabolical in Late Medieval and Early Modern European Visual Culture

Judaic Studies

JUDAIC 205 / HJCS 276: Intro to Jewish Civilizations and Culture

JUDAIC 270 / HJCS 270 / ACABS 270 / RELIGION 270: Introduction to Rabbinic Literature

JUDAIC 360: A Global History of the Jews of Spain

JUDAIC 376 / WOMENSTD 376: Women and the Bible

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

Near Eastern Studies

AAPTIS 200 / ACABS 200 / HJCS 200 / RELIGION 201: Introduction to World Religions: Near Eastern

AAPTIS 262 / RELIGION 204: Introduction to Islam

AAPTIS 285 / HISTART 285: Visual Culture Islam

AAPTIS 361: Jihad in History

AAPTIS 363 / RELIGION 363: The Qur'an and its Interpretations

AAPTIS 365: The Prophet Muhammad in Islam

AAPTIS 465 / RELIGION 465: Islamic Mysticism

AAPTIS 567: Readings in Classical Islamic Texts (requires 6th-term proficiency in Arabic)

ACABS 122 / RELIGION 122: Introduction to the New Testament
ACABS 200 / AAPTIS 200 / HJCS 200 / RELIGION 201: Introduction to World Religions: Near Eastern

ACABS 221 / RELIGION 280: Jesus and the Gospels

ACABS 261: Ancient Egypt: Religion and Culture

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 200 / ACABS 200 / AAPTIS 200 / RELIGION 201: Introduction to World Religions: Near Eastern

HJCS 270 / ACABS 270 / JUDAIC 270 / RELIGION 270: Introduction to Rabbinic Literature

HJCS 276 / JUDAIC 205: Intro to Jewish Civilizations and Culture

HJCS 478 / JUDAIC 468 / RELIGION 469: Jewish 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 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 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 272 / ASIAN 272: Introduction to the Study of Korean Religions

RELIGION 280 / ACABS 221: Jesus and the Gospels

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 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 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 455 / SOC 455: Religion and Society

RELIGION 464 / ASIAN 464: 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

Theatre & Drama

THREMUS 323 / ENGLISH 349: American Theatre and Drama, section titled "Sex and Religion in Early English Drama"

Women's Studies

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 additional 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 pre-modern 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 Program's designated advisor. Appointments are scheduled at the Program Office.

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.lsa.umich.edu/histart/

History of Art

May be elected as a departmental major

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.lsa.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

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

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.

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, faculty-student 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 (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, Henry Dyson, 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

439 West Hall
1085 South University
(734) 615-3789 (phone)
(734) 763-4676 (fax)
www.lsa.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); to reason systematically about the social impacts of and on information systems (Social Computing Track); to reason about the design of information systems (Computational Informatics 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.

Summary of Course Requirements and Prerequisites

The major in Informatics requires 44 credit hours for completion, including core courses, track requirements for the major, and electives. The major consists of four core courses, 3-4 courses in one of four flexible program tracks, plus electives selected from a list of recommended courses.

Four prerequisite courses serve as an introduction to some of the core academic aspects of the curriculum and are required for all majors. The core serves as a tour of critical perspectives and investigative methodologies, an introduction to tools and techniques, and an entry point for further study. The four core courses provide grounding in discrete mathematics, computer programs and models, research methods in applied statistics, and the ethical issues posed by new and emerging technologies. Each of the four core courses helps establish a foundation for the advanced study of informatics issues pursued through the specific informatics tracks. Core courses may be taken in any order and are required for completion of the major. Students may enroll in track courses before they have completed the entire core curriculum.

In pursuing the major in Informatics, students have the flexibility to specialize in one of four tracks: Data Mining & Information Analysis, Internet Informatics, Life Science Informatics, or Social Computing. Each of the four tracks requires three to four courses, some of which will have associated prerequisite courses enforced at registration. The tracks consist of a set of carefully chosen courses that together convey the necessary intellectual perspectives and foundational skills of the track.

In addition to the major's core and track requirements, students select electives for the major from a list of recommended courses. The breadth of elective options allows students to add intellectual depth to their selected track studies or to broaden their perspective on other aspects of the informatics field. The Faculty Steering Committee for the major will entertain appeals from students to substitute courses other than those in the list of recommended electives

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. Computational Informatics Track (*this track will be phased out in Fall 2013*)

Today, computer technology is ubiquitous, and a robust understanding of information systems is important in almost every industry and organization. Computational Informatics emphasizes issues involved in the design of computing solutions, rather than focusing on the underlying computing infrastructure. In the Computational Informatics track, students learn to assess and build usable software applications for web servers, browsers, smartphones, information analysis tools, and automation of common activities. They develop analytical skills and gain a professional understanding of how people and organizations utilize technology to manage data. Graduates of this track put their skills to use in business and in the financial, software development, and information technology industries. They are also well prepared for graduate programs in computing and information sciences, among others.

Note: This track is scheduled to be phased out in the near future and be replaced by the Internet Informatics Track.

C. 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.

D. Social Computing Track (*this track will be phased out in Fall 2013; students considering Social Computing beyond this date should apply for the B.S. in Information*)

Facebook, Twitter, and shared calendars are now embedded in the fabric of everyday life, but countless other applications have yet to be discovered and perfected, each potentially enhancing the way we interact. Applying knowledge from psychology, economics, and sociology, Social Computing students craft, evaluate, and refine social software computer applications for engaging technology in unique social contexts. Advances in computing have created opportunities for studying patterns of social interaction and developing systems that act as introducers, recommenders, coordinators, and record-keepers. Students in this track develop analytical and problem-solving skills useful in business, software development, and the information industry and are prepared for graduate study in areas including information science, business, and law.

Field of the major. 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.

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.

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. Computational Informatics track
 - i. EECS 280 (note: students who did not take EECS 282 will need to take an additional 4 credits of electives)
 - ii. EECS 382
 - iii. Two of the following Computational/Quantitative courses:
 - EECS 281 and one of EECS 376, 388, 476, 477, 481, 484, 485, 492, 493, 494.
 - iv. *Electives*:* 8 credits must be elected at the 300-level or higher
- c. 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:
 1. EECS 376, 382, 485
 2. STATS 401, 449, 470
 3. BIostat 449
 - iv. *Electives*:* 12-14 credits; 4 credits must be elected at the 300-level or higher.
- d. Social Computing track:
 - i. PSYCH 280
 - ii. SI 301
 - iii. SI 422
 - iv. SI 429 (or 529)
 - v. *Electives*:* 8 credits must be elected at the 300-level or higher.

3. **Electives:** Additional Informatics electives to bring total credits for the major to 40 credits (44 for Data Mining Track). 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 choose 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
 CMLXSYS 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*/CMLXSYS 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

Computational Informatics

BIOINF 547/MATH 547/STATS 547 Probabilistic Modeling in Bioinformatics
 BIOSTAT 449/STATS 449 Topics in Biostatistics
 EECS 280. Programming and Introductory Data Analysis
 EECS 281 Data Structures and Algorithms
 EECS 376 Foundations of Computer Science
 EECS 388

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
 EECS 494 Computer Game Design and Development
 MATH 416 Theory of Algorithms
 MATH 425/STATS 425 Introduction to Probability
 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
 SI 301 Models of Social Information Processing
 SI 422 Evaluation of Systems and Services
 SI 429 eCommunities: Analysis & Design of Online Interaction Environments
 SI 508 Networks: Theory and Application
 SI 532* Digital Government I: Information Technology and Democratic Politics
 SI 539 Design of Complex Websites
 SI 572 Database Design
 SI 583 Recommender 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 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
 CMLXSYS 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
 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

Social Computing

BIOSTAT 503* Introduction to Biostatistics
 EECS 280 Programming and Introductory Data Structures
 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
 EECS 494 Computer Game Design and Development
 EECS 495 Patent Fundamentals for Engineers
 HONORS 352. Honors Introduction to Research in the Natural Sciences, section titled "Cyberscience"
 IOE 310* Introduction to Optimization Methods
 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 525/STATS 525 Probability Theory
 MATH 526/STATS 526 Discrete State Stochastic Processes
 MATH 561*/IOE 510*/OMS 518* Linear Programming I
 MATH 562*/IOE 511* Continuous Optimization Methods
 OMS 518*/IOE 510*/MATH 561* Linear Programming I
 SI 508 Networks: Theory and Application
 SI 532* Digital Government I: Information Technology and Democratic Politics
 SI 539 Design of Complex Websites
 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 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 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

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.admissions@umich.edu
Professor Jeff MacKie-Mason, Dean

Not a major

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."

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

Not a major

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.

Program in International and Comparative Studies (PICS)

1080 South University Avenue, Suite 2660
(734) 764-2268 (phone)
(734) 763-9154 (fax)
www.i.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.i.umich.edu/pics/academics/advising

International Studies

May be elected as an area major administered solely by PICS

The major in International Studies offers students the opportunity to take a set of courses across departments 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 terrorism, global health trends, human rights and refugees, cultural homogenization and hybridization, environmental and energy crises, transnational religious movements, 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.

Prerequisites to the Major. INTLSTD 101 (or CICS 101); Courses used in the major may have additional prerequisites.

Students electing the Political Economy & Development subplan must elect ECON 101 as a prerequisite to major.

Prerequisite to Declaration of the Major. Students must have started or completed 4th-term language proficiency before declaring the major.

Requirements for the Major. A minimum of 33 credits.

Students must earn C- or better in all required PICS courses. The language requirement courses are not included in the GPA in the major.

PICS Language Requirement for the Major. Sixth-term proficiency in a language other than English must be satisfied through study of a language, though language courses do not count as credits toward the major. *Students should begin the language sequence early, and should have started or completed the fourth term proficiency or equivalent before they declare the major.*

We believe that language study is a vital part of any liberal arts education, and that students who concentrate 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 graduation admissions committees about how our students are well-rounded and focused on the world and not just the United States.

Course Requirements.

- 1. Core Courses.** INTLSTD 301 and 401 (or CICS 301 and 401), each completed with a C- or better
- 2. Research Methods Course.** One quantitative research methods course (**minimum of 3 credits**) chosen from the following list:

- ECON 401: Intermediate Microeconomic Theory
- ECON 451 (or ECON 405 prior to Fall 2014): Intermediate Introduction to Statistics and Economics
- POLSCI 391: Introduction to Modeling Political Processes
- POLSCI 490: Game Theory & Formal Models
- POLSCI 499: Quantitative Methods of Political Analysis
- SOC 210: Elementary Statistics
- SOC 310: Introduction to Research Methods
- STATS 250: Introduction to Statistics & Data Analysis

This requirement must be completed before electing INTLSTD 301.

- 3. One Regional Course (minimum 3 credits):** Geographic emphasis composed of one course devoted to a single world region or country that is related to foreign language of study. *This course cannot be double counted with a subplan course.*
- 4. Subplans:** The four subplans represent four different themes or areas of interest. Students must choose one subplan and take at least four courses (minimum 12 credits) from that subplan to gain knowledge in one area. **One of the courses must be 400 level.** The four courses must be taken in two or more academic subjects.

Students electing the Political Economy & Development subplan must elect ECON 101 as a prerequisite and at least one other ECON course.

Students electing the Comparative Culture & Identity subplan must elect INTLSTD 205 (or CICS 205) and include at least one course chosen from COMPLIT 222, 240, or 322. [If INTLSTD 205 is elected as HISTORY 101, the credits will not count toward the minimum 33 required for the major].

- 5. Three electives (minimum of 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.

List of Approved Courses by Subplan**International Security, Norms & Cooperation**

- AAPTIS 244 / HISTORY 244 / HJCS 244 / JUDAIC 244 / MENAS 244: The Arab-Jewish Conflict in the Middle East, c. 1880 to the Present
- AAPTIS 368 / AMCULT 368 / WOMENSTD 368: Women and War in the Middle East
- AAPTIS 487 / HISTORY 443: Modern Middle East History
- AAS 359 / POLSCI 359: African Politics
- AAS 432: Violent Environments: Oil, Development and the Discourse of Power
- AMCULT 206: Themes in American Culture, section titled "Gender Violence in a Global Context"
- AMCULT 368 / AAPTIS 368 / WOMENSTD 368: Women and War in the Middle East
- ARABAM 363 / AMCULT 368 / AAPTIS 368 / WOMENSTD 368: Women and War in the Middle East
- AMCULT 498: Humanities Approaches to American Culture, section titled "*Why Do They Hate Us: Perspectives on 9/11*"
- ANTHRCUL 333: Non-Western Legal Systems I
- ANTHRCUL 447: Culture, Racism and Human Nature
- ANTHRCUL 458: Topics in Sociocultural and Linguistic Anthropology, section titled "*Anthropology of Undocumented Migration*"
- COMM 439: Seminar in Journalistic Performance, section titled "*War, Revolution and the New Media*"
- COMPLIT 490: Comparative Cultural Studies, section titled "*Translating Human Rights*"
- ENGLISH 407: Topics in English Language and Literature, section titled "*Literature and Human Rights*"
- ENVIRON 490 / HISTORY 440: War and the Environment: A Lethal Reciprocity
- HISTORY 224: The Arab-Jewish Conflict in the Middle East
- HISTORY 230: Humanities Topics in History, section titled "*Tracking Human Rights*"
- HISTORY 239: The World Before 1492
- HISTORY 240: The World Since 1492
- HISTORY 244 / AAPTIS 244 / HJCS 244 / JUDAIC 244 / MENAS 244: The Arab-Jewish Conflict in the Middle East, c. 1880 to the Present
- HISTORY 257 / JUDAIC 257: Law in the Pre-Modern World
- HISTORY 310 / RCSSCI 310: Globalization in History: The Making of the Modern World
- HISTORY 318: Europe in the Era of Total War, 1870-1945
- HISTORY 328: Humanities Topics in History, section titled "*Imperialism, Violence and Human Rights*"
- HISTORY 360: September 11
- HISTORY 360: September 11
- HISTORY 363: U.S. Foreign Policy and International Politics Since World War II
- HISTORY 440/ENVIRON 490: War and the Environment: A Lethal Reciprocity
- HISTORY 443 / AAPTIS 487: Modern Middle East History
- HISTORY 449: Topics in Middle Eastern History, section titled "*The Caucasus Between Empires: Origins of Modern Conflict*"
- HISTORY 477: Law, History, and the Dynamics of Social Change, section titled "*Gender, Sexuality, and International Human Rights Law*"
- HISTORY 480: Conflict and Diplomacy in the Caucasus
- HISTORY 496: History Colloquium, section titled "*Immigrants, Exiles and Emigrations*"
- HJCS 244 / HISTORY 244 / AAPTIS 244 / JUDAIC 244 / MENAS 244: The Arab-Jewish Conflict in the Middle East, c. 1880 to the Present
- JUDAIC 244 / HISTORY 244 / AAPTIS 244 / HJCS 244 / MENAS 244: The Arab-Jewish Conflict in the Middle East, c. 1880 to the Present
- JUDAIC 257 / HISTORY 257: Law in the Pre-Modern World
- MENAS 244 / HISTORY 244 / AAPTIS 244 / HJCS 244 / JUDAIC 244 / JUDAIC 244: The Arab-Jewish Conflict in the Middle East, c. 1880 to the Present
- POLSCI 341: Comparative Politics of Developed Democracies
- POLSCI 342: Eastern Europe: Revolution, Reaction, and Reform
- POLSCI 342: Eastern Europe: Revolution, Reaction, Reform
- POLSCI 353: The Arab-Israeli Conflict
- POLSCI 359 / AAS 359: African Politics
- POLSCI 369: Politics of International Economic Relations
- POLSCI 372: Comparative Foreign Policy
- POLSCI 462: Strategic Interaction in World Politics
- POLSCI 489: Advanced Topics in Contemporary Political Science. Section titled "*The International Law & Politics of Human Rights*"
- POLSCI 498: Undergraduate Seminar in International Politics, sections titled "*War in World Politics*" and "*The International Law & Politics of Human Rights*"
- PSYCH 312 / UC 375 / SOC 375: Intergroup Conflict & Coexistence: Religion, Ethnicity and Culture
- PSYCH 393: Political Psychology
- PSYCH 401: Special Problems in Psychology as Social Science, section titled "*Psychological Aspects of War and Peace*"
- RCSSCI 310 / HISTORY 310: Globalization in History: The Making of the Modern World
- RCSSCI 360: Social Science Junior Seminar, section titled "*Global Justice: Social Theory and Practice*"
- RELIGION 305 / ASIAN 305: Religion and Violence in the Secular World
- SOC 350: Human Rights in the United Nations
- SOC 375 / UC 375 / PSYCH 312: Intergroup Conflict & Coexistence: Religion, Ethnicity and Culture
- SOC 450: Political Sociology
- SOC 495: Topics in Sociology, sections titled "*Citizenship and Human Rights*" or "*Human Rights and Socioeconomic Citizenship*"
- UC 254: Sophomore Interdisciplinary Seminar, sections titled "*When Legal Norms Collide*" and "*The History of Human Rights in Latin America*"
- UC 375 / SOC 375 / PSYCH 312: Intergroup Conflict & Coexistence: Religion, Ethnicity and Culture
- WOMENSTD 368 / AMCULT 368 / AAPTIS 368: Women and War in the Middle East

Political Economy & Development (at least one course must be ECON)

- AAS 247/HISTORY 247: Modern Africa
- AAS 322 / ENVIRON 335: Introduction to Environment Politics: Race, Class, and Gender
- AAS 432: Violent Environments: Oil, Development and the Discourse of Power
- AAS 458: Issues in Black World Studies, sections titled "*Health and African Development*" and "*Business & Politics in Developing Countries*"
- AAS 497 / POLSCI 458: Party Politics and Democracy in Sub-Saharan Africa
- ANTHRCUL 328: Globalizing Consumer Cultures
- ANTHRCUL 439: Economic Anthropology & Development
- ECON 340: International Economics
- ECON 412: Topics in Macroeconomics, section titled "*Health Economics and the Economy of Health*"
- ECON 441: International Trade Theory
- ECON 444 (or 453 prior to Fall 2014): The European Economy
- ECON 445 (or 455 prior to Fall 2014): The Economy of the People's Republic of China
- ECON 461: The Economics of Development I
- ECON 462: The Economics of Development II
- ENVIRON 270: Our Common Future: Ecology, Economics & Ethics of Sustainable Development
- ENVIRON 313 / POLSCI 394: Environment and Development: Dilemmas of Power and Place in a Global World

- ENVIRON 335 / AAS 322: Introduction to Environment Politics: Race, Class, and Gender
 - ENVIRON 367: Global Enterprise & Sustainable Development
 - HISTORY 239: The World Before 1492
 - HISTORY 240: The World Since 1492
 - HISTORY 247 / AAS 247: Modern Africa
 - POLSCI 337: Comparative Constitutional Design
 - POLSCI 343: Political Economy of Developed Democracies
 - POLSCI 348: Political Economy of Development
 - POLSCI 354 / SEAS 354: Governments and Politics of Southeast Asia
 - POLSCI 369: Politics of International Economic Relations
 - POLSCI 389: Topics in Contemporary Political Science, section titled *"State and Market of Contemporary China"*
 - POLSCI 394 / ENVIRON 313: Environment and Development: Dilemmas of Power and Place in a Global World
 - POLSCI 458 / AAS 497: Party Politics and Democracy in Sub-Saharan Africa
 - POLSCI 497 Undergraduate Seminar in Comparative and Foreign Government, section titled *"Politics of Energy in the Developing World"*
 - POLSCI 498: Undergraduate Seminar in International Politics, section titled *Globalization & Politics International Finance*
 - RCSSCI 315: International Grassroots Development
 - SEAS 354 / POLSCI 354: Governments and Politics of Southeast Asia
 - SOC 430: World Population Dynamics
 - STRATEGY 310: The World Economy
 - STRATEGY 361: International Management
 - STRATEGY 411: The Corporation in Society
 - STRATEGY 445: Base of the Pyramid: Business Innovation for Solving Society's Problems
 - UC 254.004: Sophomore Interdisciplinary Seminar, sections titled *"Cities in the Global South"* and *"Global Health Equity for the 21st-Century"*
- Comparative Culture & Identity**
- A. INTLSTD 205 (or CICS 205) [If elected as HISTORY 101, the credits will not count toward the minimum 33 required for the major].
- B. at least one course chosen from COMPLIT 222, 240, or 322:
- COMPLIT 222/GTBOOKS 212. Great Books in World Literatures
 - COMPLIT 240: Introduction to Comparative Literature
 - COMPLIT 322: Translating World Literatures
- C. The other selected courses should contribute to the coherence of the student's overall IS major. Therefore, all courses **must be approved by the International Studies Advisor and signed off by the director of PICS** prior to registration. Here is a list of courses that have been approved.
- AAPTIS 200 / ACABS 200 / HJCS 200 / RELIGION 201: Introduction to World Religions: Near Eastern
 - AAPTIS 340 / HISTORY 340 / ASIAN 340 / MENAS 340 / REEES 340: From Genghis Khan to the Taliban: Modern Central Asia
 - AAPTIS 383: The Arab-Israeli Conflict in Middle Eastern Literature
 - AAPTIS 495 / HISTORY 429 / RELIGION 496 / WOMENSTD 471: Gender and Sexuality in Pre-Modern Islam
 - AAS 409 / ANTHRCUL 408: Maternal / Child Health & Environmental Pollution in Africa
 - AAS 420 / ANTHRCUL 347: Race and Ethnicity
 - AAS 422 / ANTHRCUL 411: African Culture
 - ACABS 200 / AAPTIS 200 / HJCS 200 / RELIGION 201: Introduction to World Religions: Near Eastern
 - ANTHRCUL 222: Comparative Study of Cultures
 - ANTHRCUL 256 / ENVIRON 256: Culture, Adaptation, and Environment
 - ANTHRCUL 300: Doing Ethnography in Havana and in Cuba
 - ANTHRCUL 305: Peoples & Cultures of the Himalaya
 - ANTHRCUL 309: Anthropology of Europe
 - ANTHRCUL 317 / REEES 397: Eastern Europe in Transformation
 - ANTHRCUL 319: Latin American Society & Culture
 - ANTHRCUL 325 / WOMENSTD 324: Childbirth & Culture
 - ANTHRCUL 328: Globalizing Consumer Cultures
 - ANTHRCUL 330: Culture, Thought, and Meaning
 - ANTHRCUL 333: Non-Western Legal Systems I
 - ANTHRCUL 347 / AAS 420: Race and Ethnicity
 - ANTHRCUL 408 / AAS 409: Maternal / Child Health & Environmental Pollution in Africa
 - ANTHRCUL 409: People & Cultures of the Near East & North Africa
 - ANTHRCUL 411 / AAS 422: African Culture
 - ANTHRCUL 416 / HBEHED 516: Global Health
 - ANTHRCUL 428 / WOMENSTD 428 / RCSSCI 428: Sex Panics in the US & UK Since 1890
 - ANTHRCUL 447: Culture, Racism, and Human Nature
 - ANTHRCUL 464: Language, Culture & Society in South Asia
 - ASIAN 261: Introduction to Modern Chinese Culture. Section titled *"Modern China & Its Others"*
 - ASIAN 340 / HISTORY 340 / AAPTIS 340 / MENAS 340 / REEES 340: From Genghis Khan to the Taliban: Modern Central Asia
 - COMM 458: Special Topics in Media Systems. Section titled *"Media and Identity in Global Context"*
 - COMPLIT 382: Literature & the Other Arts
 - COMPLIT 490: Comparative Cultural Studies
 - DANCE 220 / RCHUMS 260: The Art of Dance: An Introduction to American & European Dance History, Aesthetics, and Criticism
 - ENGLISH 375: World Literature in English
 - ENGLISH 407: Topics in English Language and Literature, section titled *"Literature and Human Rights"*
 - ENVIRON 256 / ANTHRCUL 256: Culture, Adaptation, and Environment
 - GERMAN 402 / HISTORY 417: Twentieth-Century German and European Thought
 - GTBOOKS 291: Great Books of Modern Literature
 - HBEHED 516 / ANTHRCUL 416: Global Health
 - HISTORY 241: America and Middle Eastern Wars
 - HISTORY 314: Empire, War, and Modernity: France & the World in the 20th Century
 - HISTORY 333 / REEES 396 / POLSCI 396 / SLAVIC 396 / SOC 393: Survey of Central & Eastern Europe & the Enlarged European Union
 - HISTORY 340 / AAPTIS 340 / ASIAN 340 / MENAS 340 / REEES 340: From Genghis Khan to the Taliban: Modern Central Asia
 - HISTORY 417 / GERMAN 402: Twentieth-Century German and European Thought
 - HISTORY 429 / AAPTIS 495 / RELIGION 496 / WOMENSTD 471: Gender and Sexuality in Pre-Modern Islam
 - HISTORY 435 / JUDAIC 435 / RUSSIAN 435: Cultural History of Russian Jews through Literature and the Arts
 - HJCS 200 / ACABS 200 / AAPTIS 200 / RELIGION 201: Introduction to World Religions: Near Eastern
 - JUDAIC 435 / HISTORY 435 / RUSSIAN 435: Cultural History of Russian Jews through Literature and the Arts
 - MENAS 340 / HISTORY 340 / AAPTIS 340 / ASIAN 340 / REEES 340: From Genghis Khan to the Taliban: Modern Central Asia
 - POLSCI 341: Comparative Politics of Developed Democracies
 - POLSCI 346: Comparative Studies in Religion & Politics
 - POLSCI 353: The Arab-Israeli Conflict
 - POLSCI 357: Governments & Politics of India and South Asia

- POLSCI 396 / REEES 396 / HISTORY 333 / SLAVIC 396 / SOC 393: Survey of Central & Eastern Europe & the Enlarged European Union
- POLSCI 497: Undergraduate Seminar in Comparative and Foreign Governments, section titled "*Comparative Perspectives: Religion, Violence, Rights and Peace Making*"
- RCHUMS 260 / DANCE 220: The Art of Dance: An Introduction to American & European Dance History, Aesthetics, and Criticism
- RCSSCI 360: Social Science Junior Seminar, section titled "*Global Justice: Social Theory and Practice*"
- RCSSCI 428 / ANTHRCUL 428 / WOMENSTD 428: Sex Panics in the US & UK Since 1890
- REEES 340 / HISTORY 340 / AAPTIS 340 / ASIAN 340 / MENAS 340: From Genghis Khan to the Taliban: Modern Central Asia
- REEES 396 / HISTORY 333 / POLSCI 396 / SLAVIC 396 / SOC 393: Survey of Central & Eastern Europe & the Enlarged European Union
- REEES 397 / ANTHRCUL 317: Eastern Europe in Transformation
- RELIGION 201 / ACABS 200 / AAPTIS 200 / HJCS 200: Introduction to World Religions: Near Eastern
- RELIGION 496 / HISTORY 429 / AAPTIS 495 / WOMENSTD 471: Gender and Sexuality in Pre-Modern Islam
- RUSSIAN 435 / HISTORY 435 / JUDAIC 435: Cultural History of Russian Jews through Literature and the Arts
- SAC 441: National Cinemas
- SLAVIC 396 / REEES 396 / HISTORY 333 / POLSCI 396 / SOC 393: Survey of Central & Eastern Europe & the Enlarged European Union
- SOC 393 / REEES 396 / HISTORY 333 / POLSCI 396 / SLAVIC 396: Survey of Central & Eastern Europe & the Enlarged European Union
- SOC 415: Culture and Consumption
- WOMENSTD 324 / ANTHRCUL 325: Childbirth & Culture
- WOMENSTD 345: Special Topics in Gender in a Global Context
- WOMENSTD 357: Feminist Practices in a Global Context
- WOMENSTD 428 / RCSSCI 428 / ANTHRCUL 428: Sex Panics in the US & UK Since 1890
- WOMENSTD 471 / HISTORY 429 / AAPTIS 495 / RELIGION 496: Gender and Sexuality in Pre-Modern Islam

Global Environment & Health

- AAS 365 / WOMENSTD 365: Global Perspectives on Gender, Health, & Reproduction
- AAS 409 / ANTHRCUL 408: Maternal / Child Health & Environmental Pollution in Africa
- ANTHRCUL 256 / ENVIRON 256: Culture, Adaptation, and Environment
- ANTHRCUL 325 / WOMENSTD 324: Childbirth & Culture
- ANTHRCUL 327 / RCSSCI 327: Critical Theory in Medicine and Healing
- ANTHRCUL 344: Medical Anthropology
- ANTHRCUL 408 / AAS 409: Maternal / Child Health & Environmental Pollution in Africa
- ECON 471 / NRE 571: Environmental Economics
- EEB 315 / ENVIRON 315: The Ecology and Evolution of Infectious Diseases
- EEB 318 / RCIDIV 318 / ENVIRON 318: Food, Land & Society
- EHS 588 / ENVIRON 475 / NRE 475: Environmental Law
- ENVIRON 211: Social Sciences and Environmental Problems
- 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 318 / RCIDIV 318 / EEB 318: Food, Land & Society
- ENVIRON 365: International Environmental Policy
- ENVIRON 367: Global Enterprise & Sustainable Development
- ENVIRON 475 / EHS 588 / NRE 475: Environmental Law
- ENVIRON 490 / POLSCI 463: War & the Environment: A Lethal Reciprocity
- HISTORY 284: Sickness & Health in Society: 1492 to the Present
- HISTORY 285 / RCSSCI 275: Science, Technology, Medicine & Society
- NRE 475 / EHS 588 / ENVIRON 475: Environmental Law
- NRE 571 / ECON 471: Environmental Economics
- POLSCI 463 / ENVIRON 490: War & the Environment: A Lethal Reciprocity
- PUBHLTH 350: Global Health
- RCIDIV 318 / ENVIRON 318 / EEB 318: Food, Land & Society
- RCSSCI 275 / HISTORY 285: Science, Technology, Medicine & Society
- RCSSCI 327 / ANTHRCUL 327: Critical Theory in Medicine and Healing
- SOC 430: World Population Dynamics
- SOC 475: Introduction to Medical Sociology
- WOMENSTD 324 / ANTHRCUL 325: Childbirth & Culture
- WOMENSTD 365 / AAS 365: Global Perspectives on Gender, Health, & Reproduction

Honors Plan. Students interested in an Honors plan elect the Honors section of INTLSTD 101, and must complete INTLSTD 101 (OR CICS 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, and must complete all International Studies requirements for the major, and complete a senior Honors thesis. Students must earn C- or better in all required PICS courses.

Students writing a thesis will enroll in INTLSTD 499 (or CICS 499) twice their senior year, for three credits each 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.

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

Not a major

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.

Centers and Programs. The International Institute is home to centers and programs which support faculty and students interested in area and thematic studies. These include:

- African Studies Center*
- Armenian Studies Program*
- China Data Center
- Center for Chinese Studies*
- Center for European Studies*

- Center for International and Comparative Studies*
- Center for International Business Education and Research
- Islamic Studies Program*
- Center for Japanese Studies*
- Center for Latin American and Caribbean Studies*
- Center for Middle Eastern and North African Studies*
- Nam Center for Korean Studies*
- Center for Russian, East European, and Eurasian Studies*
- Center for South Asian Studies*
- Center for Southeast Asian Studies*
- Weiser Center for Emerging Democracies
- Weiser Center for Europe and Eurasia
- Center for World Performance Studies

(*described elsewhere on the Academics and Requirements website.)

Fellowships and Grants. The International Institute and its centers distribute more than \$4 million each year to support international research and study. This funding includes fellowships and grants for faculty and student research abroad, international internships, and the study of less commonly taught languages. A number of prestigious and competitive national fellowships, such as the Fulbright and Luce awards, are administered by the II.

Islamic Studies Program (ISP)

1080 South University Avenue, Suite 3603
 (734) 763-5408 (phone)
 (734) 936-0996 (fax)
www.i.umich.edu/isp
 e-mail: IslamicStudies@umich.edu

Not a major

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.

Islamic Studies Minor

The Islamic Studies Program offers an interdisciplinary minor in Islamic Studies. It allows students with an interest in Islam and its historical and contemporary expressions in various world contexts to undertake a guided and coherent program that will explore these varied expressions of Islam in our world. It is designed to give students the opportunity to plan a structured and articulated series of courses that will result in a fundamental understanding of Islam and an intellectual engagement with Islamic beliefs, practices, and societies in at least two world cultures. This is the only academic program at U-M whose focus is on Islam and its expression in Muslim societies. Unlike the AAPTIS and MENAS majors and minors, the focus of this minor is not restricted to a single world region; nor does it have a language component as do the AAPTIS major and Near Eastern Languages and Cultures minor and the MENAS major.

Intended Audience. The intended audience includes anyone with an interest in Islamic religion and its cultural and historical expressions. This might be a useful minor for students with majors in History, Anthropology, Near Eastern Studies, Asian Studies, and Political Science.

Advising. The director of the Islamic Studies Program will be responsible for advising students with a minor in Islamic Studies. Students undertaking the minor are required to formulate a coherent minor plan in consultation with the Islamic Studies advisor; the plan formulated will reflect an interdisciplinary and cross-regional approach to the subject of Islam. Appointments with the Islamic Studies academic advisor are scheduled in the ISP office (734) 763-5408.

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

Requirements: At least 16 credits. 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.

Requirements include AAPTIS 262 (Introduction to Islam) and four other courses on Islam or on Muslim societies, two of which must be upper-level courses with one of these to be elected at the 400-level.

To ensure a breadth of contextual engagement, the student is required to elect courses that reflect at least two different regional foci from among the following possibilities:

- Middle East and North Africa
- Sub-Saharan Africa
- Iran and South Asia
- East and Southeast Asia
- Central Asia
- Europe and the Americas

Islamic Studies courses

General Islamic Studies: without specific regional focus

- AAPTIS 262 / RELIGION 204 Introduction to Islam
- AAPTIS 285 / HISTART 285 Islamic Visual Culture
- AAPTIS 361 Jihad in History
- AAPTIS 365 The Prophet Muhammad in Islam
- 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 468 Islamic Law
- AAPTIS 469 Islamic Intellectual History
- AAPTIS 495 / HISTORY 429 / RELIGION 496 / WOMENSTD 471 Gender & Sexuality in Pre-Modern Islam
- AAPTIS 491 Topics in Islamic Studies *Modern Islamic Movements in Comparative Perspective*
- 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
- REEES 490 / SOC 490 / WOMENSTD 492 Women & Islam
- RELIGION 204 / AAPTIS 262 Introduction to Islam
- 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 331 Introduction to Arab Culture: Race, Ethnicity and Gender Issues
- 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
- 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

- WOMENSTD 368 / AAPTIS 368 / AMCULT 368 Women and War in the Middle East

Sub-Saharan Africa

- HISTORY 357 Topics in African History: *Islam in Africa*

Iran & South Asia

- AAPTIS 325 / HISTORY 325 / ASIAN 324 / RELIGION 325 The History of Islam in South Asia
- AAPTIS 464 Perso-Islamic Civilization
- 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
- HISTORY 397 History Colloquium: *Iran Thirty Years after the Revolution*
- 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

Europe & the Americas

- AAPTIS 210 / AMCULT 215 Introduction to Arab-American Studies
- AAPTIS 335 / AAS 335 / RELIGION 310 African-American Religion between Christianity and Islam
- AAPTIS 491 Topics in Islamic Studies: *Islam and Black America: From Slavery to Hip-Hop*
- AAS 335 / AAPTIS 335 / RELIGION 310 African-American Religion between Christianity and Islam
- AMCULT 205 American Cultures: *Muslims in America*
- AMCULT 215 / AAPTIS 210 Introduction to Arab-American Studies
- AMCULT 235 / WOMENSTD 235 From Harems to Terrorists: Representing the Middle East in Hollywood Cinema
- AMCULT 498 Humanities Approaches to American Culture: *Why do they Hate Us: Perspectives on 9/11*
- GERMAN 460 Islam and the West
- HISTORY 391 Topics: *Muslim Immigrants in 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

Center for Japanese Studies (CJS)

1080 South University Avenue, Suite 4640
 (734) 764-6307 (phone)
 (734) 936-2948 (fax)
www.i.umich.edu/cjs
 e-mail: umcjs@umich.edu

Not a major. 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.

Overseas Study

The *Kyoto Consortium for Japanese Studies (KCJS)* is an undergraduate academic year program in Kyoto co-sponsored by fourteen universities in the United States, including the University of Michigan. This Center, developed in cooperation with *Kyoto University*, opened in September of 1989. The program provides a select group of undergraduates and graduating seniors with an academically challenging course of study in Japanese language and culture. **Prerequisites:** at least two years of prior enrollment in Japanese language courses at the college level (five hours per week minimum). A limited number of students may be admitted for single semester study in the fall or spring. Applications are available from the *Center for Global and Intercultural Study (CGIS)*. KCJS also offers a six-week intensive summer program in advanced and classical Japanese for highly motivated undergraduate and graduate students who have completed three years of Japanese or equivalent. **Application deadline:** March 1. For more information and application, see kcjs-summer.columbia.edu.

The *Japan Center for Michigan Universities (JCMU)* is an opportunity for undergraduates currently enrolled at the University of Michigan to study Japanese language, society, and culture in Japan. Located in Shiga Prefecture, on Lake Biwa (near Kyoto and Osaka), the JCMU offers academic courses and programs for university credit. The program is open to undergraduates from any of the fifteen state-supported universities in Michigan, as well as students from Shiga Prefecture. **Prerequisites:** applicants must have been enrolled full-time for at least one year at one of the state-supported universities in Michigan. Applicants must apply through their home institution. Applications are available from the *Center for Global and Intercultural Study (CGIS)*.

The *Inter-University Center for Japanese Language Studies (IUC)* in Yokohama, Japan offers advanced intensive Japanese language training in a 10-month academic year program and a six-week summer program for select undergraduate and graduate students. The Center's program is intended for students who are embarking on careers in Japanese studies or a profession in which fluent Japanese is necessary. The program is designed to bring each student to a level of proficiency sufficient for academic or professional use. Applicants to the 10-month program must be currently enrolled in a grad-

uate degree program or graduating seniors who plan to enroll in a graduate program upon completion. They should have completed at least two years of college-level Japanese prior to application, and must pass a proficiency test. Applicants to the summer program must demonstrate a clear intent to pursue a professional or academic career requiring the use of Japanese, and have successfully completed two to three years of college-level Japanese. **Application deadline:** January 13 (10-month); March 15 (summer). For more information and application, see www.stanford.edu/dept/IUC/.

Undergraduate Support

Summer Foreign Language and Area Studies (FLAS) Fellowship

East Asia National Resource Center (EANRC), jointly administered by the Center for Chinese Studies, the Center for Japanese Studies and the Nam Center for Korean Studies, offers the Summer Foreign Language and Area Studies (FLAS) Fellowships for undergraduate students who are US citizens or permanent residents. Funded by a grant from the US Department of Education and supplemental funding the three constituent area studies centers of EANRC, these fellowships provide full tuition, mandatory fees and stipend for fellows to enroll in an approved summer intensive language program that teaches the equivalent of one academic year of an East Asian language as taught at the University of Michigan. Programs must be at least six weeks in length and have minimum classroom instruction time of 140 hours for intermediate language level and 120 hours for advanced level. Fellows must be at the intermediate (2nd year) or advanced (3rd year or above) language level, and students at the advanced level are given preference. Fellows who receive funding to enroll in intermediate level must complete both terms of third year language in the academic year immediately following the summer program. Chinese, Japanese, Korean and Tibetan are pre-approved languages; additional less commonly taught languages spoken in East Asia may be approved by petition. Fellows are selected on the basis of academic merit in an annual competition. For more information and application, please go to the FLAS website at www.i.umich.edu/flas/. **Application deadline:** February 1.

CJS Undergraduate Study Abroad Scholarship

Center for Japanese Studies offers a limited number of scholarships for undergraduates who participate in a study abroad program to Japan. Applicants must be currently enrolled undergraduate students in any school or college, and must participate in a study abroad academic program that is sponsored by CGIS or another school or college of the University of Michigan and that results in academic credit. Independent research, internships, and volunteer activities are not eligible. Scholarships of up to \$1,500 each are awarded in an annual competition on the basis of academic merit. For more information and application, please see the CJS website under Academics, Student Funding, UG Study Abroad Scholarship. **Application deadline:** March 15 for travel to Japan between May 1 and April 30.

Ito Foundation Scholarship

Center for Japanese Studies nominates University of Michigan students for scholarships awarded by the Ito Foundation for International Education Exchange, based in Tokyo, Japan. The Ito Foundation Scholarship provides tuition, stipend, and round-trip travel to Japan for up to two years of enrollment in a graduate degree program at a Japanese university or a program of independent research affiliated with a Japanese university or university research consortium. Scholarship recipients must be U.S. citizens or permanent residents. Currently enrolled graduate students, graduating seniors and UM alumni who received their bachelor's degree within the last twelve months are eligible to apply. Students are nominated to the Ito Foundation by the Center for Japanese Studies; the foundation's Board of Directors selects the scholarship recipient. **Application deadline:** November 15.

Jean & Samuel Frankel Center for Judaic Studies

2111 Thayer Academic Building
202 South Thayer Street
(734) 763-9047 (phone)
(734) 936-2186 (fax)
www.lsa.umich.edu/judaic
e-mail: JudaicStudies@umich.edu

Since 1976, Jewish Studies at the University of Michigan has thrived as an interdisciplinary endeavor drawing on the rich resources of a diverse faculty, educating undergraduate and graduate students, and engaging the community. The inauguration of the Frankel Institute for Advanced Judaic Studies in 2007 establishes the University of Michigan as a premiere site for Jewish Studies in the United States.

The Jean and Samuel Frankel Center for Judaic Studies at the University of Michigan offers students an interdisciplinary approach to the study of Jewish civilizations and thought. The program explores the rich culture and historical experience of the Jewish people, their unique traditions, interactions with other cultures, and impact on world civilizations. It draws on the academic excellence and expertise of faculty in many disciplines, including History; Political Science; Near Eastern studies; Germanic, English, Slavic, and Hebrew and Yiddish languages; Sociology; and Comparative Literature.

Undergraduate Study. Both a Bachelor of Arts and minor in Judaic Studies are offered by the Frankel Center, where undergraduate students receive a well-balanced understanding of Jewish Literature and Culture, Jewish History and Social Science, and Classical and Modern Judaism in Law and Religion, along with a strong knowledge of Yiddish or Hebrew. The undergraduate curriculum aims to situate Jewish Studies within a broad-based liberal arts education and provides a framework for developing critical thinking and informed engagement.

Judaic Studies

May be elected as an interdepartmental major

An undergraduate major in Judaic Studies offers students the opportunity to broaden their knowledge of international affairs, historical change and religious phenomena. The major introduces students to the history and cultures of the Jewish people, and explores the world from distinctive Jewish perspectives.

Prerequisites to the Major. JUDAIC 205 and second-term proficiency in modern Hebrew (HJCS 102) or Yiddish (JUDAIC 102).

Requirements for the Major. Students are required to complete at least 24 credits of work in approved courses, exclusive of the above language requirement and JUDAIC 205. Fifteen of the 24 credits must be elected in residence unless special permission is given by the department advisor.

The 24 credits must include two courses in each of the following three categories:

- A. Classical and Modern Judaism
- B. Jewish Literature and Culture
- C. Jewish History and Social Science

In addition, two of the courses (not including JUDAIC 205) must cover or include material from pre-modern periods (before ca. 1750).

Classical and Modern Judaism: Law and Religion

- History: HISTORY 256, 269, 277, 281, 306, 307, and 406
- Judaic Studies: JUDAIC 260, 265, 270, 277, 281, 376, 379, 467, 468, 470, 478, 481
- Law: 642, 867
- Near Eastern Studies

Ancient Civilizations and Biblical Studies: ACABS 200, 221, 270, 277, 321, 322, 470, 542, 543, 723, and appropriate sections of 591 and 592

Arabic, Armenian, Persian, Turkish & Islamic Studies: AAPTIS 200, 277

Hebrew & Jewish Cultural Studies: HJCS 200, 270, 277, 379, 470, 477, 478, 491, 542, 543, 576, 577, 591

- Religion: 201, 260, 270, 277, 359, 469, 471 and 478
- Slavic Languages and Literatures: SLAVIC 281, 481
- Women's Studies: WOMENSTD 376

Jewish Literature and Culture

- American Culture: AMCULT 387
- Anthropology: ANTHRCUL 335
- English Language and Literature: 383, and appropriate sections of ENGLISH 313, 317, 318, 417 and 430.

- History: 350, 387, 435
- History of Art: HISTART 323
- Judaic Studies: 250, 271, 281, 296, 343, 344, 373, 381, 401, 451, 467, 480, 591, and 592

- Near Eastern Studies

Ancient Civilizations and Biblical Studies: ACABS 544

Arabic, Armenian, Persian, Turkish & Islamic Studies: AAPTIS 383

Hebrew & Jewish Cultural Studies: HJCS 281, 296, 305, 323, 335, 373, 381, 401, 402, 471, 472, 491, 544, 545, 571, 572, 577, 591 and 592

- Political Science: 350 and 451
- Religion: 296, 324, 361, 444, and 471
- Slavic Languages and Literatures: RUSSIAN 435 SLAVIC 270, 281, 481
- Women's Studies: WOMENSTD 376

Jewish History and Social Science

- American Culture: AMCULT 343, 387
- Germanic Languages and Literatures: GERMAN 322
- History: HISTORY 244, 256, 269, 322, 368, 381, 382, 383, 384, 385, 386, 387, 406, 435, 628, and appropriate sections of HISTORY 396, 397, 590, 591; and MEMS 381 and 382
- Judaic Studies: JUDAIC 244, 260, 265, 271, 277, 296, 343, 380, 382, 383, 384, 385, 386, 387, 406, 410, 435, 451, 480, 628, and 652

- Middle Eastern and North African Studies: MENAS 244
- Near Eastern Studies

Ancient Civilizations and Biblical Studies: ACABS 277

Arabic, Armenian Turkish & Islamic Studies: AAPTIS 244, 277

Hebrew & Jewish Cultural Studies: HJCS 244, 277, 296

- Political Science: 350, 351, 353, 451 and 652
- Religion: 260, 277, 296, 358
- Slavic Languages and Literatures: Slavic Surveys: SLAVIC 270
- Social Work: 645
- Sociology: 410

Languages

- Judaic Studies: 201, 202, 301, 302, 333 and 401
- Near Eastern Studies

Ancient Civilizations and Biblical Studies: ACABS 201, 202, 483, 484, 581 and 582

Hebrew & Jewish Cultural Studies: HJCS 201, 202, 301 and 302

- Yiddish: 201, 202, 301, and 302

Independent Studies

- Judaic Studies: 495, 496, 497, 498, and 500.

Other courses, at the 200-level and above, may be approved by the department advisor. *100-level courses may not be included in a major.*

Students may include intermediate Hebrew or Yiddish courses in a major if they use the other language as a prerequisite.

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. The name, phone number, and office hours of the Honors department advisor are available in the Honors Office, 1330 Mason Hall, or in the Center for Judaic Studies, 2111 Thayer Academic Building.

Concurrent Undergraduate / Graduate Studies (CUGS) Program. Concentrators who are advanced in their studies and have exhausted the undergraduate resources in Judaic Studies are encouraged to speak with the Judaic Studies Student/Fellow Coordinator about the Concurrent Undergraduate-Graduate Studies (CUGS) Program in LSA.

Advising. Prospective majors should consult the department advisor. Normally, a major should reflect the multi-disciplinary nature of the program and the themes that a student wishes to develop. Appointments are scheduled via our Student / Fellow Coordinator by calling (734) 615-6097.

Judaic Studies Minor

A minor in Judaic Studies is not open to students with a major in Judaic Studies.

The minor in Judaic Studies introduces students to Jewish civilization through thematic and textual approaches. Broadly, topic areas include Jewish religious practices, language cultures, especially Hebrew and Yiddish, and the socio-political realities associated with living among non-Jews as a minority both dispersed and concentrated. 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.

Students wishing to pursue a minor in Judaic Studies must develop a specific plan for its completion in consultation with the academic advisor. Appointments are scheduled via our Student/ Fellow Coordinator by calling (734) 615-6097.

Prerequisites to the Minor: None

Requirements for the Minor: At least 15 credits of courses, including

1. JUDAIC 205 (Introduction to Jewish Civilizations and Cultures)
2. two courses from the following three categories (see department for list of specific courses)
 - Jewish Literature and Culture
 - Jewish History and Social Science
 - Law and Religion in Classical and Modern Judaism
3. two course electives (which can include Hebrew or Yiddish language at the 200-level).

Constraints: At least three of the courses counting toward the minor must be taken at the UM–Ann Arbor campus.

Nam Center for Korean Studies

1080 South University Avenue, Suite 4661
(734) 764-1825 (phone)
(734) 764-2252 (fax)
www.li.umich.edu/ncks
e-mail: ncks.info@umich.edu

Not a major. 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.

The Nam Center provides funding for public programs (art exhibitions, film festivals, lectures, and conferences), individual faculty research, undergraduate and graduate scholarships, development of new courses, and the expansion of the Asia Library's Korea collection. It maintains an active colloquium series, bringing eminent Korean Studies scholars from around the world to lecture on a diverse set of issues. The program also sponsors Korean events on campus including undergraduate and graduate initiatives and cultural activi-

ties. Major financial support from the Korea Foundation helped establish a senior professorship in Korean Studies. These activities and programs have raised awareness and appreciation of Korean culture across U-M and in the surrounding community. As the center expands, the depth and diversity of the curriculum in Korean area studies continues to grow, with a variety of courses in a number of disciplines offered each year.

The center currently offers Korea Foundation Graduate Fellowships, SeAH Haiam Arts and Sciences Scholarships, Research Fellowships, Conference Travel Support, Faculty Funding, and Asia Library Travel Grants. Foreign Language and Area Studies Fellowships (FLAS) are also available for both undergraduate and graduate students; Academic Year Graduate FLAS Fellowships are awarded to graduate and professional school students at the master's and doctoral level to study modern foreign languages and related area and/or international studies; Summer FLAS Fellowships are for undergraduate, graduate and professional school students to support summer modern language study. These awards are given only for intensive language classes that teach the equivalent of a University of Michigan academic year language class.

Center for Latin American and Caribbean Studies (LACS)

1080 South University Avenue, Suite 2620
(734) 763-0553 (phone)
(734) 615-8880 (fax)
www.i.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.

Study Abroad. LACS majors and minors are encouraged to participate in one of the study-abroad programs in Latin America that are arranged through the [Center for Global and Intercultural Study \(CGIS\)](#). Since 1992, LACS has collaborated directly with CGIS on matters relating to the joint Michigan/Wisconsin program in Santiago, Chile, and since 1999 LACS has been active in advancing two new programs in Bahía and Belo Horizonte, Brazil.

LACS currently holds a reciprocal study-abroad program with the Centro Tinku, a major regional studies center in Peru primarily at the graduate and faculty level. In addition to benefiting undergraduates, these programs may in the future provide an additional point of organization for links between Michigan faculty and graduate students, and universities and research institutes in Latin America.

Quechua Language Study at Michigan. Quechua, the language of the Inkas, is spoken today by millions of people in Bolivia, Peru, Ecuador, and Colombia. It has a written literature that goes back to the sixteenth century.

Quechua is offered as a regular course during the academic year at the University of Michigan in Ann Arbor, and as an intensive summer course in Cusco, Peru.

Three levels are taught in year-long courses:

- Beginning Quechua (LACS 471/472)
- Intermediate Quechua (LACS 473/474*)
- Advanced Quechua (LACS 475/476).

*LACS 474 meets the language requirement.

Summer Quechua Language Study in Cusco. The program is open to all college and university undergraduate and graduate students who wish to learn Southern Quechua. This unique program offers high quality intensive language instruction through the experienced faculty Centro Tinku and the unusual experience of living and learning in the ancient Inka capital of Cuzco. Classes will meet intensively for seven weeks. A series of lectures on Quechua culture and history and an extensive program of excursions and cultural events will supplement the courses. The Quechua courses are taught using the immersion method, so previous knowledge of Spanish is not required (though of course some familiarity with Spanish is useful for getting around Peru). Consult the center's website for further information: www.i.umich.edu/lacs/academics/quechualanguageprogram

Foreign Language and Area Studies (FLAS) Fellowships for undergraduate students. A FLAS Fellowship provides tuition support and a stipend to students studying designated foreign languages in combination with area studies or international aspects of professional studies. Awards are available for both summer 2012 and the 2012-13 academic year. The program's priority is to encourage the study of less commonly taught languages, specifically Quechua and Portuguese. FLAS Fellowships are administered by the University of Michigan Center for Latin American and Caribbean Studies (LACS) and are awarded competitively through annual fellowship competitions. The U.S. Department of Education funds these awards under the provisions of Title VI of the Higher Education Act.

More information and applications are available at www.i.umich.edu/lacs/academics/fellowshipgrants and then click on LACS [Foreign Language and Area Studies \(FLAS\) Fellowships](#) and then [more about undergraduate student FLAS fellowships](#).

Questions can be sent to lacs.office@umich.edu.

Latin American and Caribbean Studies

May be elected as an interdepartmental major

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. 30 credits above the 200-level, beyond the language requirement, are required to complete the major. Among the 30 credits, students must choose at least one course from each of the disciplines of Anthropology, History, Literature, and Political Science.

LACS Language Requirement for the Major. Competency in Spanish or Portuguese [equivalent to SPANISH 277 (or 275) or the intensive Spanish program at the Residential College, or PORTUG 232] 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 competency in the other major language.

Required Courses. In choosing the 30 credits of upper-level courses, students must include at least one course from *each* of the following areas:

- *Anthropology:* ANTHRCUL 319 (Introduction to Latin American Society and Culture), 414 (Introduction to Caribbean Societies and Cultures), or another upper-level Anthropology course on Latin America.
- *History:* HISTORY 347 (Latin America: The Colonial Period), or 348 (Latin America: The National Period), or another upper-level HISTORY course on Latin America.
- *Literature:* SPANISH 381, 382 (Introduction to Latin American Literature, I and II), or another upper-level course in Latin American literature.
- *Political Science:* POLSCI 347 (Government and Politics of Latin America), or another upper-level course in Latin American politics.

Elective Courses. The remainder of the 30 credits may be drawn from upper-level courses, from any department, that deal with Latin America and the Caribbean. These change from year to year. The Center will normally make available during pre-registration a list of courses relating to Latin America and the Caribbean offered the following term. Accredited courses taken during Study Abroad programs in Latin America [administered by the [Center for Global and](#)

[Intercultural Study \(CGIS\)](#), 764-4311] can in many cases count toward the major. Students should consult with their individual faculty advisor and with the Undergraduate Advisor for advice on selecting appropriate courses and developing an intellectually coherent and comprehensive program of study.

Advising. Prospective majors should consult the undergraduate advisor for guidance on courses. Appointments are scheduled in the LACS office, (734) 763-0553 or lacs.office@umich.edu.

Normally, a major should reflect the multidisciplinary nature of the program and the themes that a student wishes to develop. Students should file a tentative plan for the major with the Center in their junior year, and update it prior to graduation.

Honors Plan. LACS offers an Honors plan to qualified LACS 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 LACS graduation requirements, maintain a 3.5 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 plan is not limited to students who have been in the College Honors Program in the first and second years. More details about the Senior Thesis and about applying for LACS Honors may be obtained from the undergraduate 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.

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 the LACS student advisor.

Appointments are scheduled in the LACS office [(734) 763-0553 or lacs.office@umich.edu].

Prerequisites to the Minor: SPANISH 232 or PORTUG 232.

Requirements for the Minor: At least 15 credits in courses at the 300-level and above on Latin America and the Caribbean, to be chosen from among courses listed in the Latin American and Caribbean Studies major.

Constraints: Courses must be drawn from at least three different departments, with not more than six credits in any one department.

Linguistics

440 Lorch Hall, 1220
611 Tappan Street
(734) 764.0353 (phone)
(734) 936.3406 (fax)
www.lsa.umich.edu/linguistics
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 pre-historic 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.lsa.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 Linguistics or courses cross-listed with Linguistics. 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.

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 313 – 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 315 – Introduction to Syntax.** This course examines the rule systems whereby words are organized into phrases and phrases into sentences in natural languages.
3. **LING 316 – 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.

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. Concentrators 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 pro-

ject 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 concentrator 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 lan-

guages, 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 Bachelor's 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 Bachelor's 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: lhsp@umich.edu

Not a major

The Lloyd Hall Scholars Program (LHSP) is a first- and second-year living-learning 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 non-academic activities, including field trips, community service projects, and multicultural programs. Leadership opportunities are available for second-year 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

Not a major

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 mac-

romolecules. 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.lsa.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.

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.lsa.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 sub majors 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 the major. 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.lsa.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 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 C++) at a level equivalent to the completion of EECS 183; and the Introductory Biology sequence (BIOLOGY 171-173). 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 (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.lsa.umich.edu/undergrad/):
Discrete and Algorithmic Methods
Numerical and Applied Analysis
Operations Research and Modeling
Probabilistic Methods
Mathematical Economics
Control Systems
Mathematical Physics

Mathematical Biology

- 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 295-396, 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 C- are 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 one-credit 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.lsa.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: 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.

- a. Four basic courses (one from each of the following four groups), completed with a grade of at least C-:
 1. Differential Equations: MATH 216, 256, 286, or 316
 2. Probability: MATH 425
 4. Statistics: STATS 426
 5. Finance: MATH 423
- b. Four special courses for Actuarial Mathematics: MATH 424, MATH 520 and 521 (or 522), and MATH 523.
- 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: 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.

- a. Four basic courses (one from each of the following four groups), completed with a grade of at least C-:
 1. Differential Equations: MATH 216, 256, 286, or 316
 2. Probability: MATH 425
 4. Statistics: STATS 426
 5. 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

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.lsa.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 1st 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 312, 412, 475, or 493 (or prior to Fall 2012, 512)
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 307I and 307II (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.lsa.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.lsa.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

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
- MATH 115
- One course from: MATH 116, STATS 250, BIOPHYS 290 or PHYSICS 290, STATS 400-level or above, or any course that lists MATH 115 as a prerequisite [Note: Any course used to meet this requirement cannot also be used as an elective in the major, i.e., a course cannot "double-count."]
- 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.

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 (2nd term)
 - EEB 400
 - MCDB 400 (maximum of 3 credits)
 - INTMED 499 (2nd 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 Hon-

ors 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, 11
1150 West Medical Center Drive
(734) 763-3531 (phone)
(734) 764-3562 (fax)
www.med.umich.edu/microbio

Not a major

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)

1080 South University Avenue, Suite 3603
(734) 764-0350 (phone)
(734) 936-0996 (fax)
www.i.umich.edu/cmenas
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.

Middle Eastern and North African Studies

May be elected as an area major

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 (AAPTIS 101 and 102)
- Armenian (AAPTIS 171 and 172, or 173; AAPTIS 181 and 182, or 183)
- Hebrew (HJCS 101 and 102)
- Persian (AAPTIS 141 and 142; or 143)
- Turkish (AAPTIS 151 and 152; or 155).

Strongly recommended:

- AAPTIS 100 (Peoples of the Middle East)
- AAPTIS 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*

(If the courses below are not offered, an alternative course must be chosen in consultation with and approved by the MENAS department advisor.):

- a. ANTHRCUL 409.
- b. HISTORY 443 and one of the following:
HISTORY 442, 538, 539, 542, 545.
- c. Political Science, any one of the following:
POLSCI 351, 352, 353.

2. ***MENAS Language Requirement for the Major.*** One year of an appropriate language of the area (Arabic, Armenian, Hebrew, Persian, Turkish) beyond the first year level. For Arabic a student

may count AAPTIS 201 and 202 or one year of colloquial Arabic (Egyptian, Levantine) as the second year of language study.

3. ***Electives.*** Two approved electives, selected in consultation with the advisor, with appropriate Middle East content from the Departments of Anthropology, History, History of Art, Political Science, and Sociology and the Center for Middle Eastern and North African Studies.

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.

Advising. Prospective majors are encouraged to work closely with the area department advisor not only to ensure completion of the program requirements, but also to provide support in planning for future opportunities. Academic advising appointments are scheduled at 1080 South University Avenue, Suite 3603.

Minor in 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.

Students interested in the minor in Modern Middle Eastern and North African Studies should develop a specific plan for its completion in consultation with the academic advisor. Appointments are scheduled the center's office at 1080 South University, Suite 3603, (734) 764-0350.

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: 3rd 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.

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.mcdb.lsa.umich.edu

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.lsa.umich.edu/biology/.

Field of the Major. 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.

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

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
- CHEM 210/211 and 215/216
- MATH 115
- One course from: MATH 116, STATS 250, BIOPHYS 290 or PHYSICS 290, STATS 400-level or above, or any course that lists MATH 115 as a prerequisite [Note: Any course used to meet this requirement cannot also be used as an elective in the major, i.e., a course cannot "double-count."]
- PHYSICS 125/127 and 126/128; or PHYSICS 135/136 and 235/236; or 140/141 and 240/241.

Requirements for the Major

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, 411, 415, 418, 422, 425, 426, 430, 432, 433, 435, 436, 437, 441, 444, 455, 456, 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 Course.** Choose one course from the following:
 - a. Any BIOLOGY, EEB, or MCDB course at the 200-, 300-, or 400-level (except BIOLOGY 200, 201, 202, 215, 262, or EEB 300, 302, or MCDB 300, 302, 320, or 412). 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.

Advising. To make an advising appointment, go to the Program in Biology website at www.lsa.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 MCDB 401, 402, 403, 405, 411, 413, 415, 418, 419, 422, 423, 426, 430, 435, 436, 437, 441, 444, 450, 455, 456, 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, 262; EEB 300, 302, MCDB 300, 302, 320, or 412). 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 Engineer-

ing. 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_fo_or_engineering/

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)
www.engin.umich.edu/minors/multidisciplinarydesign

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

Wilson Student Team Project Center. At the Walter E. Wilson Student Team Project Center (WSTPC), students can find dedicated space and facilities for teams to design, build and test projects. Located behind the FXB Building and adjacent to the Wave Field, the Wilson Center has space for design, assembly, machining, electronics, painting and some testing. The Wilson Center offers training in mill work, lathe, Welding I, Welding II, CNC router, and CAD/CAM.

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 21st 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.

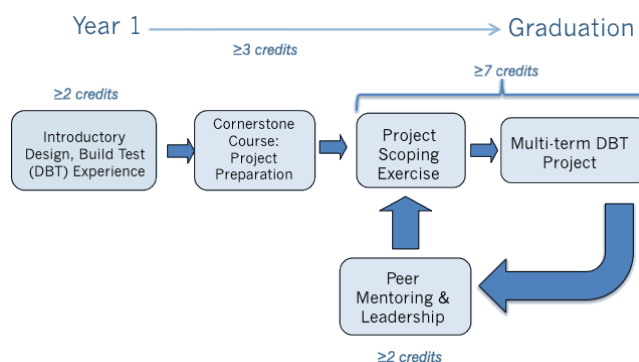
Intended Audience. While the minor would be open to all qualified students in LSA, it is expected to be of interest primarily to students in Life Sciences, Physical Sciences, and Mathematics. The Multidisciplinary Design minor promotes a wide range of experiential, project-based opportunities that engage 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 multi-semester 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 in-depth 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 in-

dependent 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.

A detailed description of the minor and its specializations is available at www.engin.umich.edu/minors.

Museum Methods

Museum of Natural History
Ruthven Museums Building
1109 Geddes Avenue
(734) 764-0478 (phone)
(734) 647-2767 (fax)
www.lsa.umich.edu/ummnh/

Not a major

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

Not a major

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.

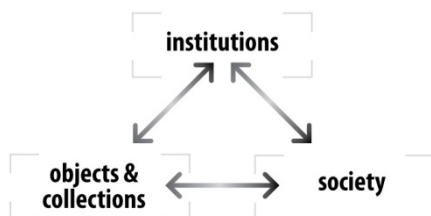
Museums have changed dramatically in the last few decades. Today's museums are dynamic institutions playing increasingly important roles in the communities they serve. In addition to being a place for collecting, preserving, studying and exhibiting "objects," the museum has become a vital arena for learning, 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; non-profit 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

A complete list of current electives can be found on the Museum Studies website.

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.

Museum Studies Program Partner Institutions

Students will benefit greatly from a diverse range of partnerships formed by the Museum Studies Program with museums, archives, special collections, and private businesses across the state. Students may encounter staff from these institutions as guest lecturers in the classroom, hosts for site visits, practicum sponsors, or through class assignments.

University of Michigan Institutions

[Bentley Historical Library](#)
[Museum of Natural History](#)
[Herbarium](#)
[Kelsey Museum of Archaeology](#)
[Map Library](#)
[Museum of Anthropology](#)
[Museum of Art](#)
[Museum of Paleontology](#)
[Museum of Zoology](#)
[Nichols Arboretum and Matthaei Botanical Gardens](#)
[Sindecuse Museum of Dentistry](#)
[Special Collections Library](#)
[Stearns Collection of Music Instruments](#)
[U-M Detroit Observatory](#)

Local and Regional Institutions

[African American Cultural and Historical Museum of Washtenaw County](#)
[American Museum of Magic](#)
[Ann Arbor Hands-On Museum](#)
[Arab American National Museum](#)
[Charles H. Wright Museum of African American History](#)
[Cranbrook Art Museum](#)
[Cranbrook Institute of Science](#)
[Detroit Historical Museum](#)
[Detroit Institute of Arts](#)
[Detroit Observatory](#)
[Detroit Zoological Institute](#)
[Flint Institute of Arts](#)
[Frederik Meijer Gardens & Sculpture Park](#)
[The Gerald R. Ford Presidential Library and Museum](#)
[The Heidelberg Project](#)
[The Henry Ford](#)
[Jim Crow Museum of Racist Memorabilia](#)
[Michigan Science Center](#)
[Museum of Contemporary Art Detroit](#)
[Public Museum of Grand Rapids](#)
[Toledo Museum of Art](#)
[Toledo Zoo](#)
[Yankee Air Museum](#)

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
 Professor Christopher Kendall, Dean

Music Performance Courses. Students of advanced ability may elect instrumental or voice instruction through the University of Michigan School of Music, Theatre & Dance provided teaching assistant or faculty time is available. This instruction, which consists of half-hour weekly lessons for two credits, is not available to beginners.

The online application process for Studio (private) instruction opens at the end of each term, for the upcoming term. Students should go to the School of Music, Theatre & Dance website (music.umich.edu), [Current Students > Student Resources > Studio Application](#) and fill out the online application per the directions. It is the student's responsibility to initiate contact with the assigned instructor. Students enrolled in performance courses must provide their own instruments (except organ and piano); practice facilities are available at the University of Michigan School of Music, Theatre & Dance.

When registering, students should note that:

- (1). there is a different division number for each instrument (see *Schedule of Classes*);
- (2). LSA students should use course number 150; and
- (3). there is a different section number for each instructor.

Questions concerning registration for performance instruction should be directed to the SMTD Office of Academic Affairs, 2277 Moore, phone 734-764-2516.

Please note that not all applicants can be placed – available teacher-hours are limited, and priority is given to performance majors in the School of Music, Theatre & Dance. If you do not see a studio assignment by the second week of the term at the following link: www.music.umich.edu:444/dw-1/studio_assign/studioassignment_lookup.php, you can assume the department was unable to accommodate you. You may, however, apply again before the start of the next term. Students who cannot earn degree credit for performance courses cannot be accommodated by this program.

Ensembles. A wide variety of music performing ensembles are available to LSA students. Principal among these, for instrumentalists, are Ensemble (ENS) 344 (University Campus Orchestra) and ENS 346 (Campus Band), as well as ENS 348 (U-M Marching Band), for which an audition is required. Other instrumental ensembles, both orchestras and bands, are designed primarily for University of Michigan School of Music, Theatre & Dance students, but LSA students with a performance background are encouraged to audition for these groups as well. Vocalists may audition for the University Arts Chorale (designated for the LSA population), but may also audition for the University of Michigan School of Music, Theatre & Dance vocal ensembles, including the University Choir (ENS 349), the University Chamber Choir (ENS 350), the Choral Union (ENS 354), and the Men's and Women's Glee Clubs (ENS 353 and 356). In addition, many LSA students have participated in performing ensembles sponsored by the ethnomusicology faculty, such as the Javanese gamelan (ENS 405), for which no prior background is required. *No music performing ensemble carries LSA credit.*

Dance

Dance Building
 1310 North University Court
 (734) 763-5460 (phone)
www.dance.umich.edu

Not an LSA major. Students with an interest in Dance should contact the Department of Dance.

Music

sitemaker.umich.edu/lmusic

e-mail: lsamusicadvisor@umich.edu

Professor Louise K. Stein (Musicology), Advisor
Associate Professor Charles Garrett (Musicology), Advisor

May be elected as an interdepartmental major

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 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 the 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 the 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 the equivalent (by permission of instructor).
3. **Music Composition (COMP):** COMP 221, 222, PAT 201, or equivalent (students with an historical or ethno-musicological 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). Ensemble may be elected to cover two of the four required terms.
5. **Two additional MUSICOL, THEORY, COMP, or PAT courses at the 400 level or above.** One of these must be a junior-senior seminar in MUSICOL or THEORY for majors with a focus in either of these areas.

The core requirements listed here typically demand approximately 30 credits. Music majors may select the remaining music courses in ac-

cordance 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/lmusic

Minor in Music

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, or the equivalent (MUSICOL 343, 345, 346), or MUSICOL 139/140, 239/240, or Introduction to Music Theory (THEORY 137, or 139/149), or the 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.

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. Theatre 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.

Productions and Facilities. A number of fully executed productions are presented each year by the Theatre & Drama Department in three campus theatres – The Arthur Miller Theatre, Power Center for the Performing Arts, and the Lydia Mendelssohn Theatre. Scenery, properties, and costumes for all departmental productions are prepared, with substantial student assistance, in studios and shops in the Arthur Miller Theatre and Power Center. In addition, students have the opportunity to direct, design, stage, and perform in their own low-budget and experimental productions through Basement Arts. This student-run production organization performs in the Walgreen Drama Center.

Theatre Shops. Our comprehensive production facilities include two scene shops, a paint shop, prop shop, electrics shop, sound studio, costume shop, dye room and costume lab.

Design Studios. Our design studios are equipped with Macintosh computer workstations, a color plotter, scanner, a variety of computer-assisted design software, and a large format photocopier.

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

- THREMUS 245 Intro to Stage Management (3)
- THREMUS 250 Intro to Tech Theatre (3)
- THREMUS 321 or 322 Theatre History I or II (3)
- THREMUS 351 Practicum V – 1st ASM (3)

And six credits chosen from:

- THREMUS 101 Intro to Acting (3)
- THREMUS 240 Intro to Design (3)
- THREMUS 256 Lighting Design I (3)
- THREMUS 345 Stage Managing Plays (3)
- THREMUS 385 Performing Arts Management (3)
- THREMUS 435 Producing in American Theatre (3)
- THREMUS 446 Advanced Stage Management (3)
- THREMUS 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:

- Introductory Survey:* THREMUS 222 – Introduction to Global Theatre and Ethnic Studies
- Introductory Studio Practice:* THREMUS 233 – Modern Rituals/Traditional Practices

B. Capstone Community Engagement course:

- THREMUS 324 – Global Communities Practicum or
- 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:

- Dramatic Performance Literature.* These courses expand and deepen student knowledge of global or ethnic performance literatures.

- THREMUS 325 – Contemporary American Theatre and Drama
- THREMUS 326 – Intercultural Drama
- THREMUS 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

- Studio Electives.* One of the following:

- THREMUS 332 – Performing Archives and Oral Histories
- THREMUS 340 – Devising Theatre
- THREMUS 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:

- THREMUS 385 (Performing Arts Management) - 2 credits
- THREMUS 426 (Fundraising and the Arts) - 2 credits
- THREMUS 435 (Producing in the American Theatre) - 3 credits
- THREMUS 438 (Legal Issues in the Arts) - 3 credits

- PAT 472 (Business of Music) - 3 credits
 - JAZZ 480 (Career Development for Jazz Musicians) - 2 credits
 - 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.lsa.umich.edu/neareast

The Department of Near Eastern Studies offers instruction in the languages, literatures, histories, cultures and religions of the ancient Near East and the medieval and modern Middle East. The department's language offerings provide the foundation for the academic study of the literatures, histories, cultures and religions of the region. The ancient language offerings include Sumerian, Egyptian, Akkadian, Hittite, Ugaritic, Avestan, Aramaic, and Classical Hebrew. The medieval and modern language offerings include Armenian, Arabic, Hebrew, Persian, Turkish, and Uzbek. The undergraduate programs in the department are designed to initiate the academic study of the region, enhance the student's critical skills, and promote an increased understanding of the historical processes underlying the transformation of cultures.

Prerequisite to Major. All Near Eastern Studies majors must complete the prerequisite course ACABS 100/AAPTIS 100/HJCS 100/HISTORY 132: Peoples of the Middle East.

Majors. The student must select one of four divisions in Near Eastern Studies in which to pursue a major. Three divisions with special language requirements are: Ancient Civilizations and Biblical Studies (ACABS); Arabic, Armenian, Persian, Turkish and Islamic Studies (AAPTIS); or Hebrew and Jewish Cultural Studies (HJCS). Each of the three divisions provides specific programs to enhance the focus of the major. The department also offers a general studies major in Near Eastern Civilizations (NEC), a major without the language component of other program majors. A major in the department requires completion of course work in four categories: the prerequisite courses, the required language courses, the divisional elective courses and the optional elective or cognate courses. The divisions and their programs are described below. Near Eastern Studies also offers minors in Near Eastern Languages and Cultures and Early Christian Studies.

All Near Eastern Studies majors must complete a minimum of thirty hours of credit in the major in the languages, literatures, histories, cultures and religions of the region. In addition, each concentrator must select two additional courses from offerings other than those provided by the division of major. Both cognate courses must be approved by the director of undergraduate studies and the student's department advisor. *The student must maintain at least a grade of a C in each term of a required major language.* Those courses for which a student receives a lesser grade must be repeated.

Honors Plan. Concentrators who qualify as candidates for Honors in Near Eastern Studies are those who meet the requirements for a regular major, maintain a GPA of at least 3.4 overall and 3.5 in the major, and complete the writing of a senior thesis with distinction. Honors majors are required to enroll in the thesis course (498) both academic terms of their senior year, for not less than three or more than six credits per term. Further information concerning the Honors plan can be obtained at the departmental office or the Honors Program Office (1330 Mason Hall).

Advising. Students interested in the department's majors in ACABS, AAPTIS, HJCS, or NEC should contact the department's director of undergraduate studies who will direct the student to the appropriate department advisor. Students who plan to complete the requirements for the major for a Bachelor of Arts degree in Near Eastern Studies must complete the LSA Major/Minor *Declaration Form*. This form is available at the departmental office, or at the Newnan LSA Academic Advising Center (1255 Angell Hall).

Ancient Civilizations and Biblical Studies (ACABS)

May be elected as a departmental major

The division of *Ancient Civilizations and Biblical Studies (ACABS)* offers instruction at the introductory to advanced levels in the languages, literatures, histories, cultures, and religions of the ancient Near East (Anatolia, Egypt, Mesopotamia, Israel, Jordan, and Syria). The concentrator in ACABS can select from *one of four options* within the division designed to meet the special interests of the student:

- Ancient Mesopotamia,
- Hebrew Bible and Ancient Israel,
- New Testament and Early Christianity, or
- Ancient Egypt.

The course, ACABS 100: Peoples of the Middle East, is the prerequisite to the ACABS major. The concentrator in ACABS is required to complete four terms of language. The languages for which four terms of instruction are offered include Akkadian, Classical Hebrew, and Classical Greek. Fourth-term proficiency in Classical Hebrew or Classical Greek satisfies the language requirement of the College of LSA. The student has the option to complete only two terms of one of those three languages and two subsequent terms of a second (and third) language. In place of four terms of one language, the concentrator can select one of the following language options:

- one year of Akkadian followed by one year of Sumerian
- one year of Classical Hebrew followed by one term of Aramaic and another of Ugaritic
- one year of Classical Hebrew followed by one year of Classical Greek
- one year of Middle Egyptian and one year of one of the following languages: Classical Greek, Classical Hebrew, or Akkadian.

In addition to the four terms of language, the ACABS concentrator must elect six additional courses in the languages, literatures, histories, and cultures and religions of the ancient Near East. These six divisional courses are to be selected from the four course levels: one at the 100-level, one at the 200-level, one at the 300-level, and three at the 400-500-level. The concentrator must also complete two cognate courses outside the division of major. The courses for the major must be approved by the director of undergraduate studies and the department advisor. Please contact the departmental secretary to make an appointment with the department advisor.

Arabic, Armenian, Persian, Turkish, and Islamic Studies (AAPTIS)

May be elected as a departmental major

The division of *Arabic, Armenian, Persian, Turkish, and Islamic Studies (AAPTIS)* offers instruction at the introductory to the advanced levels in medieval and modern Arabic, Armenian, Persian, and Turkish languages and literatures. Courses in the histories and cultures of select regions represented by these language groups are also offered as are a wide range of topics in Islamic studies. The concentrator in AAPTIS can select from *one of five options* within the division designed to meet the special interests of the student:

- Arabic,
- Armenian,
- Persian,
- Turkish, or
- Islamic Studies.

The course, AAPTIS 100: Peoples of the Middle East, is the prerequisite to the AAPTIS major. A concentrator in AAPTIS must complete four terms of a single language. Fourth-term proficiency in Arabic, Armenian, Persian, or Turkish satisfies the language requirement of

the College of LSA. These majors must also select five other courses in the languages, literatures, linguistics, histories, cultures, and religions most closely related to their language of choice. Two of the five courses must be at the 400-level or above. The concentrator must complete two cognate courses outside the division of major. These courses must be approved by the director of undergraduate studies and the department advisor. Students in Islamic Studies must either concentrate on Arabic (four terms) or complete two terms of Arabic and two terms of Armenian, Persian, or Turkish depending on their area of focus.

The student should consult with the director of undergraduate studies and the department advisor in selecting the appropriate major. Please contact the departmental secretary to make an appointment with the department advisor.

Hebrew and Jewish Cultural Studies (HJCS)

May be elected as a departmental major

The division of *Hebrew and Jewish Cultural Studies (HJCS)* offers instruction at the introductory to the advanced level in Hebrew language, literature and culture. Learning the language enables students to engage in the study of historical, literary and religious texts, as well as study the politics, folklore, anthropology of the culture, using texts and various media, including film. The study of Classical and Modern Hebrew texts provides students with an integrated view of the development of Hebrew and Jewish literature and culture. The program offers a variety of upper division courses in these areas, making it possible for students to create a major in HJCS.

Summary: All majors in HJCS are required to complete HJCS 100: Peoples of the Middle East. A HJCS concentrator must complete four terms of Hebrew (HJCS 101, 102, 201, 202) and five additional courses, including advanced Hebrew (HJCS 301), two upper-division courses taught in Hebrew, or which require the reading of Hebrew texts, and two additional courses in the fields of Jewish, Israeli or Hebrew literature, history, or culture. **A student who places out of HJCS 301 is required to take an additional Hebrew course.** The concentrator must also complete two cognate courses outside HJCS. These courses must be approved by the department advisor.

Prerequisites to the Major: HJCS 100, 101 and 102.

Major: A minimum of 24 credits, distributed as follows:

1. **Language courses:** HJCS 201, 202, and 301
2. **Language, Literature, History & Culture courses:** four courses, two of which must be offered in Hebrew.
3. **Cognates:** In consultation with the department advisor and the director of undergraduate studies, the student must select a minimum of two cognate courses outside HJCS. This may include course selections from Biblical and Rabbinic studies, from other divisions within the Department of Near Eastern Studies, and cross-listed courses.

Near Eastern Civilizations (NEC)

May be elected as a departmental major

The Department of Near Eastern Studies also offers a general departmental studies major. The purpose of this major is to provide the student with an intensive survey of the literatures, histories, cultures, and religions of the ancient Near East and the medieval and modern Middle East but without the language component of the other program majors. The student who wishes to declare a major in *Near Eastern Civilizations (NEC)* may substitute for the four terms of language an equal number of courses in literature, history, or culture and religion. The NEC concentrator must complete at least six of the ten total courses in one of the three SUBJECTs within the department, ACABS, AAPTIS, or HJCS, three of these must be at the 400-500 level. At least one course must be taken in each of the other SUBJECTs. In addition, the student must take two cognate

courses in SUBJECTs other than the main SUBJECT in Near Eastern Studies, or outside the department. As with the other majors, the minimum number of credits for NEC is 30 and the prerequisite course is ACABS 100/AAPTIS 100/HJCS 100/HISTORY 132, Peoples of the Middle East. Honors is not normally awarded to the student in NEC, although petitions for exceptions can be made to the director of undergraduate studies.

To declare this major, the student must obtain prior approval from the director of undergraduate studies and the department advisor. Please contact the departmental secretary to make an appointment with the department advisor.

NEC Requirements in summary:

- A. Prerequisites to the Major
 1. Approval of director of undergraduate studies
 2. ACABS 100/AAPTIS 100/HJCS 100/HISTORY 132: Peoples of the Middle East
- B. Distribution by SUBJECT
 1. Six of ten courses in one SUBJECT
 2. A minimum two other courses with one in each of the other two SUBJECTs
 3. Two cognate courses outside the main SUBJECT
- C. Levels Distribution
 1. Five of ten at 400-500 level
 2. Three at 400-500 level in SUBJECT where the six courses are selected
 3. At least one each at 100-, 200-, and 300-level.

Near Eastern Studies Minors

Early Christian Studies

A minor in Early Christian Studies is not open to students with a major or another minor in the Department of Near Eastern Studies or Classical Studies.

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.

Students interested in the minor in Early Christian Studies should develop a specific plan for its completion in consultation with the appropriate advisor. Appointments are scheduled in the department office.

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

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

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).

Students interested in the minor in Near Eastern Languages and Cultures should develop a specific plan for its completion in consultation with the appropriate advisor. Appointments are scheduled in the department office.

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.

Undergraduate Program in Neuroscience

1140 Undergraduate Science Bldg. (USB)
204 Washtenaw Ave.
(734) 763-7984 (phone)
(734) 647-7892 (fax)
www.lsa.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).

Faculty Steering Committee

- **Kent Berridge** (Professor, Psychology)
- **Cunming Duan** (Professor, Molecular, Cellular, and Developmental Biology)
- **Daniel Weissman** (Associate Professor, Psychology)
- **Haoxing Xu** (Associate Professor, Molecular, Cellular, and Developmental Biology)

Neuroscience (B.S.)

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 head-start 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:
 - Calculus I (MATH 115, 120, 185, or equivalent)
 - Calculus II (MATH 116, 121, 156, 176, 186, or equivalent)
 - Physics I (PHYSICS 125, 135, 140, 160, or equivalent)
 - Physics II (PHYSICS 126, 235, 240, 260, or equivalent)
 - Any STATS course that has STATS 250 as a prerequisite
 - [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:

- 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]
- Genetics:** BIOLOGY 305
- Biochemistry:** one of MCDB 310, BIOLCHEM 415, or CHEM 351
- Biopsychology:** PSYCH 230
- Statistics:** STATS 250

2. Electives (5 courses, minimum 16 credits).

- 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, 422, 426, 450, 455, 456
- Behavioral Neuroscience.** At least two courses from the following:
 - PSYCH 240, 245, 345, 402 (appropriate sections, 3-4 credits only), 431, 433, 434, 435, 436, 437, 438, 531, 532, 533
 - ANATOMY 541
 - NEUROSCI 520.
 - PHYSIOL 541
- Optional Courses.** Elect no more than one course from the following:
 - BIOLOGY 205;
 - MCDB 397, 401 (appropriate sections), 405, 408, 411, 417, 427, 428, 435, 436, 441, 462, 469;
 - EEB 492;
 - PSYCH 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:

- Method-Based Laboratory courses:** Choose at least one course from:
 - BIOLOGY 226
 - MCDB 306, 308, 419, 423, 429.
- 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.lsa.umich.edu/neurosci/academics/advisingprogram/policies

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

713 David M. Dennison Building
500 Church Street
(734) 764-6767 (phone)
(734) 764-6554 (fax)
www.lsa.umich.edu/orgstudies
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 entry-level 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.lsa.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 ORSTUDY 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

2215 Angell Hall
435 South State Street
(734) 764-6285 (phone)
(734) 763-8071 (fax)
www.lsa.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.lsa.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. Concentrators 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:* Either PHIL 361 (Ethics) or 366 (Political Philosophy) or 367 (Social and Political Philosophy)
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. Concentrators 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.lsa.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.lsa.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.

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.

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.

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. Either PHIL 361 or 366 or 367
 - 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 400-level, other than formal methods (PHIL 413, 414).

Program in Philosophy, Politics, and Economics

Philosophy Department
2215 Angell Hall
435 South State Street
(734) 764-6285 (phone)
(734) 763-8071 (fax)
www.lsa.umich.edu/ppe
email: ppe@umich.edu

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](#).

PPE Interdepartmental Steering Committee

[William J. Adams](#) (Professor of Economics and Director of Undergraduate Studies, Department of Economics), Chair (July 1, 2013-June 30, 2014)

[Elizabeth Anderson](#) (Professor of Philosophy and Associate Chair of Undergraduate Studies, Department of Philosophy)

[Robert Franzese](#) (Professor of Political Science)

[Eric Lormand](#) (Associate Professor of Philosophy)

Philosophy, Politics, and Economics (PPE)	Philosophy Department	Political Science Department	Economics Department
	2215 Angell Hall 435 South State Street Ann Arbor, MI 48109-1003	5700 Haven Hall 505 South State Street Ann Arbor, MI 48109-1045	238 Lorch Hall 611 Tappan Ann Arbor, MI 48109-1220
	(734) 764-6285 (phone) (734) 763-8071 (fax)	(734) 764-6313 (phone) (734) 764-3522 (fax)	(734) 764-2355 (phone) (734) 764-2769 (fax)
www.lsa.umich.edu/ppe	www.lsa.umich.edu/philosophy	www.lsa.umich.edu/polisci/	www.lsa.umich.edu/econ
e-mail: ppe@umich.edu	e-mail: philosophy.staff@umich.edu	e-mail: polisci@umich.edu	e-mail: econundergradoffice@umich.edu

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.lsa.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 / CMLXSYS 391: Introduction to Modeling Political Processes
 - POLSCI 488: Political Dynamics
 - POLSCI 490: Game Theory and Formal Models
 - POLSCI 499: Quantitative Methods of Political Analysis
 - CMLXSYS 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 / CMLXSYS 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 400-level, 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.lsa.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.lsa.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 340/341 and PHYSICS 351.

Students interested in majoring in Physics should have an understanding of mathematics through differential equations.

Requirements for the Major. At least 27 credits in PHYSICS numbered 390 and above. The Physics Department requires no less than 15 credits toward the major be completed in residence.

A plan for the major must include:

1. *Core:* PHYSICS 390, 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 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 340/341 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 24 credits, including at least 9 in PHYSICS courses numbered 390 and above. The Physics Department requires no less than 12 credits toward the major be completed in residence.

A plan for the major must include:

1. PHYSICS 390.
2. Two additional Physics courses at the 400 level and beyond.
PHYSICS 390 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
1. PHYSICS 340/341
2. PHYSICS 390.

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.

Physiology

Molecular and Integrative Physiology
U-M Medical School
7744 Medical Science II
1301 East Catherine Street
(734) 763-5727 (phone)
www.physiology.med.umich.edu

Not a major

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.lsa.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.

Political Science

May be elected as a departmental major

Prerequisites to the Major. Two courses chosen from different subfields of political science. First- and second-year students choose from among POLSCI 101 (political theory), 111 (American government), 140 (comparative politics), 160 (world politics); juniors and seniors from POLSCI 301 and 302 (political theory), 311 (American government), advisor approval (comparative politics), and advisor approval (world politics).

Requirements for the Major. At least 24 credits in POLSCI (in addition to required prerequisites) and 6 credits elected through a cognate department.

Core courses must be elected from the 300-level or higher, including at least two at the 400-level. Twelve credits (including the two at the 400-level) must be taken *in the department*.

Only 9 hours of foreign credit from a one-term accredited program and 12 hours of foreign credit from a year-long program may be counted toward the core for the major.

No more than 4 credits of internship and 4 credits of directed study may be included in a plan for the major. *Directed reading may not be counted as advanced unless approved beforehand by a department advisor.*

Credit for STATS 250 can count toward methods requirements for the major.

Seniors are encouraged to elect an undergraduate seminar (POLSCI 495, 496, 497, or 498). Law courses, with the exception of POLSCI 345 are counted in the American politics subfield. 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 subfields: political theory, American government, comparative politics, world politics, and methodology. Normally, this requirement is satisfied by the Prerequisites to the Major and different additional upper-level courses in two subfields. Cognate courses, which are upper-level courses in another discipline, are an integral part of the plan for the major and should be selected with a view toward building a coherent program of study. As a general rule, cognate courses should be in the same discipline with exceptions approved in advance by a department advisor.

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

Honors Plan. Especially well-qualified students are encouraged to undertake an Honors plan. Such students elect the Honors proseminar (POLSCI 381) before their senior year and prepare a senior thesis under the direction of a faculty member in the department. Senior Seminars (POLSCI 493, 494) provide thesis credit. Students may count only two Honors courses toward the core for the major, one if a previous directed reading has been taken.

Normally, candidates for an Honors plan must maintain a grade point average of at least 3.5 in political science courses.

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.

Advising. Normally, the decision to concentrate is made late in the sophomore year or early in the junior year. Advising appointments are scheduled by going to the Political Science website: polisci.lsa.umich.edu or by contacting the department office. Appointments for the Honors advisor are scheduled at 1330 Mason Hall.

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.lsa.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: Two introductory courses in two different sub-fields. First- and second-year students choose from among POLSCI 101 (political theory), 111 (American government), 140 (comparative politics), 160 (world politics); juniors and seniors from POLSCI 301 and 302 (political theory), 311 (American government), advisor approval (comparative politics), and advisor approval (world politics).

Requirements for the Minor: Five 3- or 4-credit, upper-level courses taken in two of the five political science fields for a total of 15 credits.

Students should ideally take their upper-level courses in the same two fields as their prerequisites. Advisor approval must be obtained in order to switch areas.

The minor is a structured course of study in itself. Students majoring in Political Science should consult an advisor before considering dropping the major in order to pursue a minor in political science.

The minor assumes that the student will take 300-level course work in the fields of the introductory work. A sustained focus on two fields makes it possible for students to acquire an in-depth knowledge of two complex areas such as comparative politics and government and world politics for the student interested in world affairs, American

and methods, for students interested in electoral politics and polling, or American and comparative to focus on political institutions.

Other constraints: The minor does not allow a student to use a cognate from another department.

Michigan in Washington Program (MIW)

5700 Haven Hall
(734) 615-6491 (phone)
(734) 764-3522 (fax)
www.lsa.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 (1 credit)** 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.lsa.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.lsa.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 post-graduate 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.

Prerequisites to the Major. Before declaring a major in Psychology or Biopsychology, Cognition, and Neuroscience, students must complete:

- an introductory course (PSYCH 111, 112, or 114) with a minimum letter grade of "C";
- two gateway courses (PSYCH 230, 240, 250, 260, 270, 280, 290) from different breadth groups;
- STATS 250; and
- An orientation for the major.

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.

A minimum of 24 credits is required for the major. Of the overall 40 credits (prerequisites and courses for the major), 24 must be completed directly through the University of Michigan's Department of Psychology at the Ann Arbor campus. Of these 24 credits, 12 credits must be upper-division (300 or above). 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. Only one course from each group may be used toward either the prerequisite or credits for the major.

Group	Course
Biopsychology Group	PSYCH 230 or 335
Cognitive Group	PSYCH 240, 245, or 345
Social Science Group	PSYCH 250, 260, 270, 280, or 290

2. **Lab requirement.** Students must elect two different courses for a minimum of five credits total. To meet the lab requirement, students may complete either:

- two (at least 2 credits each) courses from the list of Methods-based Lab courses;
- one (at least 2 credits) course from the list of Methods-based Lab courses and one (at least 2 credits) course from the list of Research Lab courses; or
- the Psychology Honors Research sequence (6 credits total) and one course (at least 2 credits) from the list of Methods-based Lab courses.

Methods-Based Lab Courses:

- PSYCH 303, 331/332, 341, 342
- BIOLOGY 226
- EEB 381 or 493
- MCDB 306, 308, or 423

**Note:* Only one non-departmental course may be elected to satisfy the lab requirement. Each course must be taken for a minimum of two credits each and be completed in a single academic term.

Research Lab Courses (2 credits minimum to satisfy requirement):

- Research-based Lab Courses: PSYCH 322, 326, 422, 428
- Honors Research Sequence: PSYCH 424 and 426.

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. 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.

3. Four additional courses, for a minimum of 12 credits selected from the following: PSYCH 230, 240, 245, 335, 338, 344, 345, 346, 347, 348, 349, 400, 413, 420, 433, 434, 435, 436, 437, 438, 439, 442, 445, 447, 448, 449, 530, 531, 532, 533, 541.
4. **Additional credits.** In order to meet the minimum requirement of 24 credits, students may elect additional courses from the advanced courses in biopsychology and cognitive psychology, approved lab courses, or cognate courses.
5. **Cognate course requirement.** One course selected from the following list:
 - ANTHRBIO 467, 478
 - BIOLCHEM 415
 - BIOLOGY 208, 222, 225, 305, 390
 - CHEM 351
 - EEB 381, 440, 442, 450, 451, 481, 492
 - EECS 281, 492
 - LING 315, 514
 - MCDB 307, 310 (or 311 or 412), 418, 422
 - PHIL 340, 345, 450, 482
 - STATS 401, 406

Psychology (General Social Science)

May be elected as a departmental major

Exclusions: Students who elect a major in Psychology may not elect the major in Brain, Behavior, and Cognitive Sciences (BBCS) or Biopsychology, Cognition, and Neuroscience (BCN).

Student double majoring in Psychology and Neuroscience may share a maximum of 3 courses toward their two programs.

A minimum of 24 credits is required for the major. Of the 40 overall credits (prerequisites and courses for the major), 24 must be completed directly through the University of Michigan's Department of Psychology at the Ann Arbor campus. Of these 24 credits, 12 credits must be upper-division (300 or above). 100-level courses may not be used to meet the requirements for the major or the credit requirement. Only one course from the breadth groups may be used toward

the major. Although some courses that are graded credit/no credit may be used to meet the lab requirement, the 24 credits for the major must be letter graded.

1. **Breadth Requirement:** At least one course from each of the groups below. Only one course from each group may be used toward either the prerequisite or credits for the major.

Group	Course
Biopsychology/Cognitive	PSYCH 230, 240, or 245
Developmental/Psychopathology	PSYCH 250 or 270
Organizational/Social/Personality	PSYCH 260, 280, or 290

2. **Lab Requirement:** To meet the lab requirement, students may complete either:
 - a. two (at least 3 credits each) courses from the list of Methods-based 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 Research-based); 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 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 letter-graded 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. **Additional 300- and 400-level Courses for the major.**

The remainder of the major is filled by upper-level (300- and 400-level) psychology courses, which must include at least 9 credits of lecture or seminar courses. It is strongly recommended that majors elect at least one 400-level course.

Courses which may not be used as part of a major in Psychology are identified in the course listings.

Concentrators who are planning to earn graduate degrees in psychology may find a supplementary background in the biological sciences or in the social and behavioral sciences (*i.e.*, anthropology, sociology, *etc.*) helpful in their later studies. Concentrators are also advised that additional courses in mathematics, communication sciences, and logic are likely to facilitate advanced study in psychology. A student's personal interests should determine the shape of the plan for the major.

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
1700 School of Public Health I
1415 Washington Heights
(734) 764-5425 (phone)
(734) 763-5455 (fax)
www.sph.umich.edu
e-mail: sph.inquiries@umich.edu

Not a major

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

Not a major

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 1 00).
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. Concentrators 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 16th-Century Painting
RCHUMS 315 Representations of History in the Literature and Visual Arts of Rome
RCHUMS 344 Reason and Passion in the 18th 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 20th Century
RCHUMS 291 Arts and Ideas of the 19th 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 19th-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 Topics in World Dance
 RCHUMS 260 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 Introduction to Visual Thinking and Creativity
 RCARTS 269 Elements of Design
 RCARTS 285 Photography
 RCARTS 286 Sculpture
 RCARTS 287 Printmaking
 RCARTS 288 Introduction to Drawing
 RCARTS 289 Ceramics

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 a minor in Writing or 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:* THREMUS 321 and 322
2. *Fundamentals of acting and script analysis:*
 - A. One of RCHUMS 281 or RCHUMS 282
 - B. One of THREMUS 101 or 110 or 102
3. *The Senior Capstone.* RCHUMS 481.

4. *Category Requirement.* Six 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
- TH TREMUS 233, 323
- AAS 342
- ENGLISH 349

B. *Design and Production.* Choose at least two from:

- RCHUMS 482
- TH TREMUS 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 re-enact 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.lsa.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.lsa.umich.edu/rc/currentstudents/studentactivities/germantheatre_ci

Social Theory and Practice

May be elected as a departmental 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 and complete the following requirements:

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 RCSSCI 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:

1. *Required courses:*

- A. Two courses in social theory. RCSSCI 301 is required; a second may be RCSSCI 302 or an approved substitute in LSA.
- B. One course in quantitative methods (STATS 250, SOC 310, SOC 312, or ECON 404)
- C. A research seminar, RCSSCI 460, in which the student completes a Senior Project or Senior Thesis.

2. *Thematic Courses (at least 16 credits):* A minimum of four courses at the upper level (300 and above), chosen as part of the approved plan for the major. 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

Not a major

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.

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:

1. **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)
- THREMUS 399: Topics in Drama (section titled "The Atonement Project")

Peace and Social Justice (PSJ)

Not a major

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 or CICS 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 or CICS 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 or CICS 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 20th- and 21st-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
- COMPLIT 430. Comparative Studies in Fiction, section titled *“The Arab-Israeli 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 or CICS 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 or CICS 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. 20th-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 or CICS 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. 20th-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.

Science, Technology & Society (STS)

Science, Technology, and Society Program

www.lsa.umich.edu/sts

e-mail: sts.minor.advisor@umich.edu

Not a major

Not open to students with a minor in Medical Anthropology or History of Medicine

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.

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. Appointments may be scheduled by sending e-mail to sts.minor.advisor@umich.edu. Students may not declare the STS minor later than the first week of the first term of their senior year.

No course may be counted simultaneously toward both STS and any other minor.

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.

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 5 courses for a minimum of 15 credits of courses, to be elected from the categories as stated below:

- Core course:** RCSSCI 275.
- Electives.** A minimum of 2 courses for at least 7 credits, subject to the following conditions:
 - A maximum of one elective at the 100 level is permitted (up to 4 credits).
 - one elective must be at the 300 level or above.
 - Students may also count any research seminar (see below) as an elective.
 - At least one elective and the research seminar must be drawn from one of the focus clusters: science and society, technology and society, or medicine and society.

A. Science and Society Focus Cluster

ANTHRBIO 360, 362, 467
 ANTHRCUL 256
 AOSS 172, 300
 BIOLOGY 101
 CHEM 120 (section subtitled "The History and Philosophy of Chemistry")
 EARTH 140, 172, 380, 496 (section subtitled "Global Oil System and the Middle East")
 ECON 370
 EEB 498
 ENSCEN 172
 ENVIRON 111, 201, 211, 256, 263, 270, 318, 350, 360, 361, 375, 280, 391, 414
 GEOG 111

HISTORY 301, 302 (section subtitled "Science, Technology, and Defining the Human"), 366, 397 (section subtitled "Human Nature and its Sciences"), 427

MENAS 491 (section subtitled "Global Oil System and the Middle East")

NURS 220

PHIL 420

PSYCH 384, 385

Residential College

- RCNSCI 232, 260, 263, 270, 350, 415, 461 (section subtitled "Global Oil System and the Middle East")

- RCIDIV 318, 351 (section subtitled "Evolution and Intelligent Design"), 391

SOC 111

UP 263

B. Technology and Society Focus Cluster

AOSS 172, 300

CEE 260

EARTH 172, 380, 496 (section subtitled "Global Oil System and the Middle East")

ENSCEN 172

ENVIRON 111, 263, 350, 380

ENGLISH 415 (section subtitled "Research and Technology in the Humanities")

GEOG 111

HISTORY 302 (section subtitled "Science, Technology, and Defining the Human"), 310, 396 (sections subtitled "Race, Gender, and Empire", "Global Nuclear Proliferation"), 498 (section subtitled "Steam Engines and Computers: From Proletariats to Information Workers")

MENAS 491 (section subtitled "Global Oil System and the Middle East")

PSYCH 485

Residential College:

- RCIDIV 330, 430, 450

- RCNSCI 263, 270

- RCSSCI 310, 374, 461 (sections subtitled "Steam Engines and Computers: From Proletariats to Information Workers", "Global Oil System and the Middle East"), 462

SI 110, 513

SOC 111, 495 (section subtitled "Steam Engines and Computers: From Proletariats to Information Workers")

UC 110

UP 263

WOMENSTD 485

C. Medicine and Society Focus Cluster

AAS 355

ANTHRCUL 258 (section subtitled "Culture and Medicine"), 325, 344, 355, 416

BIOLOGY 118

HBEHED 516

HISTORY 284, 300, 310, 355, 396 (section subtitled "Human Experimentation")

NURS 220

PSYCH 211 (section subtitled "Health, Illness, Society"), 359, 401 (section subtitled "Health Psychology")

Residential College:

- RCNSCI 260 (section subtitled "From Shamans to Cyborgs: Socio-Cultural Studies of Health, Illness, and the Biomedical Sciences" and other topics as appropriate)

- RCIDIV 351 (section subtitled "Law and Bioethics")

SOC 475

UC 210

WOMENSTD 220, 324, 400.

- One research course or seminar**, at the 300- or 400-level, in the student's chosen focus cluster, chosen in consultation with,

and approved by, the advisor. The research course or seminar will normally be completed in the student's junior or senior year. To be approved for this requirement, a course must include a major research project (typically a long term paper) or a significant field study component.

Approved STS Research Courses and Seminars

ANTHRCUL 325

EARTH 496 (section subtitled "Global Oil System and the Middle East")

EEB 498

ENVIRON 318

HISTORY 396 (section subtitled "Human Experimentation", "Global Nuclear Proliferation", and other colloquia, if appropriate), 498 (section subtitled "Steam Engines and Computers: From Proletariats to Information Workers")

MENAS 491 (section subtitled "Global Oil System and the Middle East")

PHYSICS 481

Residential College:

- RCIDIV 318
- RCNSCI 415
- RCSSCI 374, 461 (sections subtitled "Steam Engines and Computers: From Proletariats to Information Workers", "Global Oil System and the Middle East"), 462

SOC 495 (section subtitled "Steam Engines and Computers: From Proletariats to Information Workers")

WOMENSTD 324

Drama: Text-to-Performance (T-t-P)

Not a major

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) 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 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 / THREMUS 222. Introduction to Black Theatre.
- AAS 342 / THREMUS 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 / THREMUS 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.
- THREMUS 222 / AAS 341. Introduction to Black Theatre.
- THREMUS 233 / AAS 342. Acting and the Black Experience.
- THREMUS 323 / ENGLISH 349. American Theatre and Drama.
- THREMUS 324. Contemporary Black Theatre.
- THREMUS 332. Performing Gender: Drama from Oral Sources.
- THREMUS 402. Ideas of Theatre: Dramatic Theory and Criticism.

Urban Studies

Not a major

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 424, "Introduction to Urban Systems"

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.

Potential Theory / Perspectives Courses

- 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 20th 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 20th 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 424 Introduction to Urban Systems 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.

Potential Policy / Technique Courses

- ARCH 423 / UP 423 / ENVIRON 370 Introduction to Urban and Environmental Planning
- ENVIRON 370 / UP 423 / ARCH 423 Introduction to Urban and Environmental Planning
- 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 423 / ARCH 423 / ENVIRON 370 Introduction to Urban and Environmental Planning
- 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 424, Introduction to Urban Systems 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.

Potential Applications / Practice Courses

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 only the particular offerings with the subtitles listed above (or others that are relevant to urban and community studies).

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: rl.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.lsa.umich.edu/AdvAppts/AA_StuSelfSvc1.aspx?ctgy=RLL
or at the department office, 4108 Modern Languages Building, (734) 764-5344.

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. Concentrators 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 270-274, 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/rl).

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

Majoring 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 ITALIAN 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.

ITALIAN 410 (Italian for Spanish Speakers) does not count toward the requirements for the Italian 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.

Honors Plan. Students holding a cumulative GPA of 3.5 and Italian GPA in the major of 3.5, 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 Italian. In addition to the normal requirements for the major, students are required to prepare a 30-page thesis in Italian and to pass an oral examination in Italian on the same subject before the last two weeks of classes. In order to be admitted to the program, students must obtain written approval from the professor with whom they wish to write the thesis and complete an application, available on the department website at www.lsa.umich.edu/rll.

Portuguese

Not a major

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, Guinea-Bissau, 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

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 Spanish-speaking 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 credit in the major 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 credits), of at least 3 credits each, beyond the prerequisite.

SPANISH 308 does not count toward the major.

Required Courses in SPANISH:

- 12 to 15 credits chosen from SPANISH courses numbered 279 to 399
- 15 to 18 credits chosen 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 PORTUG 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 15 of the required 30 credits for the major must be taken either in residence or through a study-abroad program affiliated with the University of Michigan.

Honors Plan: Qualified students holding a cumulative GPA of 3.5 and a GPA in the Spanish major of 3.7 may apply to the Honors program 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.

To graduate with an Honors plan, a student must complete the normal requirements for the major in Spanish along with the following requirements:

1. One additional course in SPANISH (3 credits) at the 400 level.
2. Composition of a thesis in Spanish (a minimum of 40 pages). The thesis may consist of a critical study relating to Hispanic literature/culture, a creative writing project, or a multi-media project (in which case the page requirement may not apply). The research, planning, and execution will take place during two academic terms. After choosing a faculty member to direct the thesis, the student will enroll in SPANISH 490 and begin researching and drafting the thesis. By the end of the term in which the student elects SPANISH 490, the student will submit for a grade a complete bibliography and a prospectus. In the following academic term the student will enroll in SPANISH 491 and complete the thesis. SPANISH 490 and 491 will count within the seven course sequence of 400-level courses for the Honors degree.
3. A presentation and discussion of the thesis with the director and one or two other faculty members at the end of the term in which the student elects SPANISH 491. The Honors student has the option of inviting other students to the event.

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 the LSA 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

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.1.1):

- ROMLING 300, Introduction to the Romance Languages
- ROMLING 400, Topics in Romance Languages and Literatures, sections titled "Romance-Based Pidgins and Creoles" or "Romance-Based 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

Students wishing to pursue a minor must develop a specific plan for its completion in consultation with a designated advisor. Appointments may be scheduled at 4108 Modern Languages Building, (734) 764-5344.

French and Francophone Studies

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

The Italia minor is not open to students electing a major in Italian or any other minor in Romance Languages and Literatures.

The objective of the minor in Italian are to develop some facility in the use of Italian, to recognize major monuments of Italian literature, 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.

ITALIAN 410 (Italian for Spanish Speakers) does not count toward the Italia minor requirements.

The 18 credits must include at least one course each at the 200-level beyond ITALIAN 233, the 300-level, and the 400-level.

Constraints: 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.

Portuguese

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 415 may not be counted toward the 18 credits), including the following courses:

1. **Required Core:** PORTUG 287 Advanced Portuguese Conversation and Composition (this can be taken concurrently or before 400-level courses)
2. **Electives**
 - a. At least one course with a national or regional focus
 - PORTUG 460: Portuguese Culture,
 - PORTUG 461: Brazilian Culture
 - PORTUG 462: Lusophone African Cultures
 - b. At least one course with a disciplinary focus
 - PORTUG 471: Literature in the Portuguese-Speaking World,
 - PORTUG 472: Cinema in the Portuguese-Speaking World
 - PORTUG 473: Popular Music in the Portuguese-Speaking World; or equivalent)
 - c. At least one topics course
 - PORTUG 301: Topics in Afro-Luso-Brazilian Cultures
 - PORTUG 474: Advanced Topics in Afro-Luso-Brazilian Cultures
 - d. Other Electives: PORTUG 290, 350, 499

Neither PORTUG 280 nor POTUG 415 may be counted toward the 18 credits for the Portuguese minor.

Cognates. Students pursuing the minor in Portuguese may petition to have up to 3 cognate 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. Cognate courses must be approved in advance by a Portuguese advisor in the department of Romance Languages & Literatures

Constraints: 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

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.

The Spanish minor offers students majoring in other fields the opportunity to acquire additional competence in Spanish 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: 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 credit in the major 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 7 courses (21 credits) of at least 3 credits each, beyond the prerequisite, including:

- 12 credits chosen from courses numbered SPANISH 279 to 399
- 9 credits chosen from courses at the 400 level

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 415 toward the Spanish major.

SPANISH 308 does not count toward the minor.

Residence Requirement. At least 12 of the required 21 credits for the minor must be taken either in residence or through a study-abroad 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.i.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 CREES undergraduate academic advisor online at www.i.umich.edu/crees.

Russian, East European, and Eurasian Studies

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 REEES 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 CREES 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.
3. *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 CREES website at www.i.umich.edu/crees.

REEES 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 REEES major must actually complete at least two years (four terms)

of relevant university-level language training as approved by the CREES 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 REEES major and a 3.4 overall GPA may apply for admission to the Honors program. Applications for the program, which are available at the CREES 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 due-date 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 CREES undergraduate academic advisor online at www.i.umich.edu/crees.

Concurrent Undergraduate/Graduate Studies (CUGS) Program. Concentrators 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 CREES advisor about applying for enrollment in LSA and the Rackham Graduate School through the Concurrent Undergraduate-Graduate Studies (CUGS) Program in LSA.

Advising. Appointments are scheduled online at: www.i.umich.edu/crees/academics

Arrangements for continuing contacts are made in the first meeting with the undergraduate academic advisor. This meeting should be scheduled during the second term of the sophomore year.

REEES 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 REEES 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. REEES 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 REEES is the home unit, which includes SLAVIC 395 and 396.

Students pursuing a REEES minor must discuss their plans and course elections with the CREEES undergraduate academic advisor. Appointments can be scheduled online at:

www.i.umich.edu/creees/academics

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.

CREEES 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 CREEES 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 REEES.*

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 CREEES 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 – Survey of Central and Eastern Europe and the Enlarged European Union
OR
REEES 397 – Eastern Europe in Transformation.
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 REEES.*

Russian Studies

CREEES 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 CREEES 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 – Survey of Russia: The Russian Empire, the Soviet Union, and the Successor States.
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 REEES.*

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, administered by the Residential College STS Program, as well as a graduate certificate.

Minor. Technology often precipitates the most drastic, 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.

For information on the minor in Science, Technology and Society, please see the minor's description under the Residential College.

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.

Screen Arts and Cultures

May be elected as an interdepartmental major

Prerequisite to the Major. SAC 236 and SAC 272, each completed with a minimum grade of C-.

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, 400, 401, 402, 404, 406, 410, 411, 423, 427 [effective W14 and retroactive to prior terms].
 - E. One studies course selected from among the following in national, regional, or transnational cinema: SAC 250, 313, 314,

316, 332, 333, 334, 341, 365, 368, 380, 381, 440, 441, 442, 458, 470, 485, or a similar course pre-approved 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.

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.lsa.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

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 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.

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:

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, 355, 365, 366 (approved topics), 367, 368, 381, 450, 451, 460

Non U.S. media

AAS 232, 440

AMCULT 420

ASIAN 245, 458, 475

GERMAN 172, 330, 331

RCHUMS 312, 313

SAC 232, 245, 440, 441, 455 (approved topics), 458

SLAVIC 312, 313

SPANISH 420

- 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

Independent Studies (SAC 499) may not be used toward the minor.

Slavic Languages and Literatures

3040 Modern Languages Building
812 East Washington Street
(734) 764-5355 (phone)
(734) 647-2127 (fax)
www.lsa.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. A major is offered in Polish and Russian, minors in Bosnian/Croatian/Serbian, Czech, Polish, Russian, Ukrainian, and Cultures and Literatures of Eastern Europe. The department also offers courses in Bosnian, Croatian, and Serbian, as well as Ukrainian.

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

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 and a Heritage Speakers track.

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 451 or 499; RUSSIAN 347 and 348; and at least one course in Russian literature after 1900 (*e.g.*, RUSSIAN 361, 450, 467, 468, 469, 470, 471, 472, 475).
3. **Upper-level Russian language and literature electives:** at least two courses (in addition to those listed above) from RUSSIAN 401*, 402*, 410, 413, 414, 415, 416, 417,

418, 419, 420, 453, 454, 455, 456, 460, 461, 462, 463, 464, 465, 466, 476, and 485.

Russian majors who elect RUSSIAN 462, 463, or 464 are expected to read Russian texts.

* *Advising Recommendation:* For most students RUSSIAN 401/402 will be the preferred choice. Students who do not take the RUSSIAN 401/402 sequence will find RUSSIAN 451 or 499 much more difficult.

4. **Cognates for Russian Language and Literature:** three or more credits in advanced courses (300-level or above) in:
 - A cognate course studying some other aspect of Russia. (Special attention is called to courses listed under *Russian, East European, and Eurasian Studies.*) OR
 - another Slavic language (Czech; Bosnian, Croatian & Serbian; Ukrainian; and Polish) OR
 - another foreign language

B. Culture track (subplan)

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 231 or SLAVIC 270 or SLAVIC 240 or SLAVIC 281; RUSSIAN 301 (or RCLANG 323) and 302; or 303; RUSSIAN 401 and 402; RUSSIAN 451 or RUSSIAN 499.
3. **Upper-Level Electives for Culture Subplan:** At least two of RUSSIAN 322, RUSSIAN 477, SLAVIC 313, RUSSIAN 358, SLAVIC 481, RUSSIAN 347 or 348.
4. **Cognate requirement for Russian Language and Literature.**

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, 402, 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, 450, or other literature or culture courses with permission of advisor.
4. **Cognate requirement for Russian Language and Literature.**

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 coun-

try. 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 an 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.lsa.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
 Bosnian/Croatian/Serbian: Prof. Tatjana Aleksić
 Czech: Prof. Jindrich Toman
 Polish: Dr. Piotr Westwalewicz
 Russian: Prof. Michael Makin
 Ukrainian: Svitlana Rogovyk

Appointments are scheduled online at

www.lsa.umich.edu/slavic/undergraduate/advising.

Bosnian/Croatian/Serbian (BCS) Literature and 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

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 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 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 perspec-

tive 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:

1. 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 (3rd Year Ukrainian I)
- UKR 352 (3rd 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

Not a major

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

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) 763-5733], 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. Advising responsibilities primarily reside with the School of Social Work. Core faculty from the other disciplines may also participate in advising. The faculty advisors work with students on minor

course selection, career planning, and integrative learning processes. The questions regarding curricular requirements for the minor will be handled by the Associate Dean for Educational Programs at the School of Social Work.

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 20th 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
- 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
- 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 20th 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
- 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
- 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 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")
- 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
- THREMUS 399: Topics in Drama (section titled "The Atonement Project")
- 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.

E. 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.

Students who are accepted into the Preferred Admission program will be granted admission to the MSW program if the following criteria are met:

1. Successful completion of the Community Action and Social Change minor.
2. Successful completion (grade C or better) of all courses/content areas listed below:
 - a. English composition requirement;
 - b. Liberal arts coursework: minimum of 20 semester hours (Anthropology, Economics, History, Political Science, Psychology, Sociology, *etc*). Students need to have coursework from three

or more disciplines in order to meet the liberal arts requirement;

- c. Biological determinants of behavior. Such course content may be covered in psychology, biology, human sexuality, human development and/or anthropology courses.
3. An overall grade point average of 3.5 or better (based on the last 60-75 semester hours of coursework).
4. Submission of an MSW program application, with all required supporting documents, by December 1st for the fall term prior to the proposed term of enrollment in the MSW Program.

Students in the Preferred Admission Program are *encouraged* to do the following: Undergraduate students may elect graduate (500 level) courses in the School of Social Work. If these courses are used for the undergraduate degree, and a "B" is obtained, these courses may be used as exemptions for the required courses toward the Master of Social Work degree, (these exemptions do not reduce the 60 credit hour degree requirement). If these courses are not applied toward an undergraduate degree, they may be transferred to the School of Social Work, and counted toward the 60 credit degree requirement. Prior to enrolling in 500 level social work courses, student should meet with a counselor in the Office of Student Service (1748 SSWB).

During the period of enrollment in the CASC minor, School of Social Work admissions counselors will be available to meet with Preferred Admission program participants.

For information on the School of Social Work and the MSW program:

- SSW Website: www.ssw.umich.edu
- CASC Website: www.ssw.umich.edu/programs/undergrad/
- Email: ssw.msw.info@umich.edu

Sociology

3001 LSA Building
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.

Special Opportunities. The Department of Sociology offers a wide range of special opportunities for undergraduates to actively engage in the design of their education. These include: department advising, service-learning through Project Community, independent studies with faculty, facilitation of Intergroup Dialogues, the Honors Program, SURO (Sociology Undergraduate Research Opportunities), writing competitions and awards, and a department-supported student organization, the Undergraduate Sociology Association.

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.

Project Community. A number of sociology majors participate in Project Community (SOC 225: Practicum in Sociology), an experiential learning and community service program. Students earn academic credit by reflecting sociologically on their volunteer experience in education, criminal justice, public health, and community organizing settings. Roles open for student volunteers include those of tutors, referral service workers, health care assistants, patient educators, prisoner and youth advocates, and recreational or artistic workshop leaders. This course is an ideal experiential complement to the academic instruction provided by the department. Students, assisted by trained undergraduate coordinators and graduate student instructors, gain useful skills and contacts while serving the needs of the community. Project Community administration is organized by the Ginsberg Center for Community Service. Students can find more information about Project Community at: ginsberg.umich.edu/projectcommunity.

Sociology

May be elected as a departmental major

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, or 300. 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 upper-division 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

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 270, 350, 354, 368, 461, 465, 476, 489
- appropriate topics in SOC 295, 495
- approved independent studies in SOC 395
- 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.lsa.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.lsa.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).

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 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 495 – Topics in Sociology
- SOC 395* – Independent Study

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.li.umich.edu/csas
 e-mail: csas@umich.edu

Not a major. 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.

Foreign Language and Area Studies (FLAS) Fellowships for Undergraduates. The Center offers a funding opportunity for students who are U.S. citizens or permanent residents, and are able to study a South Asian language (Hindi, Punjabi, Tibetan, or Urdu) at the second year level or beyond. An academic year fellowship covers \$10,000 toward tuition and a \$5,000 stipend. Contact the Center for details.

CSAS Undergraduate Fellows Program: Summer in South Asia. The Center for South Asian Studies offers a special opportunity to chart your own course in India. Thanks to a generous donation to the Center for South Asian Studies, undergraduate students at U-M have an opportunity to design and carry out their own fellowship programs in India during the summer. This fellowship is intended for non-graduating students who have not already spent significant amounts of time in India. *All projects MUST be self-directed research projects and not paid or unpaid internships.* A Preliminary Application is due in late January. For specific details on the application process, consult the Center's website:

www.li.umich.edu/csas/academics/summerinsouthasiafellowships

Study Abroad. The Center for Global and Intercultural Study sponsors programs in India in conjunction with the University of Wisconsin's College Year in India program. These programs offer students the opportunity to study in either Madurai or Varanasi, India – each site highlighting India's ethnic, religious, and linguistic diversity. Both sites feature intensive language study and allow students to learn about their surroundings firsthand by completing an in-depth, year-long fieldwork project.

Center for Southeast Asian Studies (CSEAS)

1080 South University Avenue, Suite 3603
(734) 764-0352 (phone)
(734) 936-0996 (fax)
www.i.umich.edu/cseas
e-mail: cseas@umich.edu

Not a major. 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.

First Year Southeast Asian Language Scholarships. In order to support learning about Southeast Asia, the Center for Southeast Asian Studies offers a set of scholarships for students taking First Year Filipino, Indonesian, Thai or Vietnamese in the coming school year.

CSEAS will offer between 8 and 12 \$1000 scholarships on a competitive basis to students enrolling in one of the following sequence of courses:

- First-Year Filipino I and II: ASIANLAN 111.001 (Fall), ASIANLAN 112.001 (Winter)
- First-Year Indonesian I and II: ASIANLAN 121.001 (Fall), ASIANLAN 122.001 (Winter)

- First-Year Thai I and II: ASIANLAN 161.001 (Fall), ASIANLAN 162.001 (Winter)
- First-Year Vietnamese I and II: ASIANLAN 175.001 (Fall), ASIANLAN 176.001 (Winter)

The scholarships are available to both undergraduate and graduate students, but with preference to undergraduates in their first or second years at the University.

Winners of the scholarship competition will be given \$500 each academic term, paid out after the drop-add deadline each term, and applied to their Financial Aid package. Students must complete the two-course sequence.

Applying for the First Year Southeast Asian Language Scholarships

A complete application will include:

- [A completed application form](#)
- A one-page personal statement
- [A language self-report](#)
- [A letter of recommendation](#) from a former or current language teacher (if possible) or from another teacher or instructor
- Academic transcripts

Applications are due in mid-March; Language scholars and alternates are named in early April. Consult the Center's website for specific dates.

For more information, please email us at cseas@umich.edu, or call (734) 764-0352.

Foreign Language and Area Studies (FLAS) Fellowships for Undergraduates. The Center offers a funding opportunity for students who are U.S. citizens or permanent residents, and are able to study a Southeast Asian language (Filipino, Indonesian, Thai, or Vietnamese) at the second year level or beyond. An academic year fellowship covers \$10,000 toward tuition and a \$5,000 stipend. Contact the Center for details.

Overseas Study. The University of Michigan's Center for Southeast Asian Studies is a member of several Southeast Asian Language consortiums that offer advanced language training abroad in Indonesia, Thailand, the Philippines, and Vietnam. The University of Michigan also belongs to the *Consortium for International Educational Exchange* (CIEE) that offers possibilities for study abroad in Thailand and Vietnam. It is also a member of the *Southeast Asian Summer Studies Institute* (SEASSI) held each summer at the University of Wisconsin–Madison. For further information on summer programs, please consult our website:

ii.umich.edu/cseas/academics/languageprograms#summerlanguageprograms

Statistics

439 West Hall
1085 South University Avenue
(734) 763-3519 (phone)
(734) 763-4676 (fax)
www.stat.lsa.umich.edu

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 21st 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.

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

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 425, 426, 500.
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.

Advising. Normally, most statistics courses are elected after an introductory mathematics sequence has been completed or after consulting a department undergraduate advisor. See Department website for contact information:

www.lsa.umich.edu/stats/undergraduate/advising

Statistics Minors

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. See Department website for contact information:

www.lsa.umich.edu/stats/undergraduate/advising

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: MATH 115.

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: MATH 215.

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

Not a major

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
 - WRITING 100: Transition to College Writing
 - WRITING 120: College Writing for Multilingual Writers
 - WRITING 200: New Media Writing
 - WRITING 201: New Media Writing Mini Course
 - WRITING 220: Introduction to the Minor in Writing
 - WRITING 240: Academic Communication for Multilingual Students
 - WRITING 302: Global Communication: Rhetorical Approaches to Multilingual Conversation
 - WRITING 340: Disciplinary Writing for Multilingual Students: Vocabulary and Grammar in Context
 - WRITING 350: Excelling in Upper-Level Writing
 - WRITING 400: Advanced Rhetoric and Research
 - WRITING 410: Quantitative Analysis and Writing in the Disciplines
 - WRITING 420: Minor in Writing Capstone
 - WRITING 430: The Teaching of Writing
 - WRITING 630: Advanced Writing for Graduate Students
 - 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 Sweetland-trained 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

The Minor in Writing is designed for undergraduate students who are interested in developing their disciplinary and professional writing abilities while pursuing majors across the liberal arts and sciences. This minor complements students' primary course of study by promoting discipline-specific writing competence, expertise in new media, and rhetorical awareness across a range of genres and modes. This minor is particularly advantageous for students who may already be completing writing-related coursework (or have an interest in completing such coursework) and wishes to earn a credential that certifies their writing expertise to prospective employers and graduate programs.

Students completing the Minor in Writing develop an electronic portfolio of the writing they produce throughout their undergraduate career. The e-portfolio provides students with the opportunity to reflect on their development as writers, demonstrate their proficiency in visual rhetoric and new media writing, and showcase their writing abilities. Students have the opportunity to create an e-portfolio in WRITING 220 and another one in WRITING 420 that builds on the skills they've acquired.

Students who complete the Minor in Writing will demonstrate the ability to:

- Produce complex and well-supported arguments that matter in academic contexts.
- Use flexible strategies for organizing, revising, and proofreading writing of varying lengths and genres.
- Identify and implement rhetorical choices responsive to the demands of specific genres, audiences, and rhetorical situations, both academic and non-academic.
- Compose in a variety of modes, including a range of new media.
- Identify the expectations that characterize writing in their major, and use this knowledge to write effectively in a range of genres in that discipline.
- Use meta-language regarding writing processes, rhetorical choices, genre expectations, and disciplinary discourse to discuss writing-in-progress and writing development over time.
- Collaborate with other writers to improve writing-in-progress and produce co-authored documents.

Prerequisites to the Minor: Students must have satisfied the First-Year Writing Requirement with a final grade of C or higher, have declared a major by the end of the term they apply to the Minor in Writing, and have at least three full terms remaining in their program. Transfer students who satisfy the FYWR with a transfer course approved by Sweetland will need to show proof of receiving a grade of C or higher.

Students must apply to and be accepted by the Sweetland Center for Writing to be declared in the minor. Students must be able to enroll in WRITING 220 in their first term 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: Introduction to the Minor in Writing (3), which must be taken in the student's first full semester after being accepted into the minor.
2. One of the following courses:
 - WRITING 200: New Media Writing (only when taken for 3 credits)
 - ENGLISH 225: Academic Argumentation (4)
 - ENGLISH 229: Professional Writing (4)
 - ENGLISH 325: Art of the Essay (3)
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 (3)

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 appointment online by selecting Minor in Wrtg from the drop down menu in [Sweetland's scheduling system](#)

Admission Policies and Application Procedures

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.

Requirements for the application:

- Applicants must have completed their First-Year Writing Requirement with a final grade of C or higher. Transfer students who completed the FYWR with a transfer course approved by Sweetland will need to show proof of receiving a grade of C or higher.
- Applicants must have **at least** three full terms remaining in their program.
- Applicants must be able to enroll in WRITING 220 in their first semester in the Minor.

Materials for application:

- Completed application form available on [Sweetland's website](#)
- Letter of interest
- Writing sample from any college course
- Unofficial U-M transcript (available through Wolverine Access)

Admissions process and criteria:

- Submit all materials by the posted deadline. The admission process is competitive and space is limited.
- Application materials are reviewed by a committee of Sweetland faculty, who make admissions recommendations based upon the quality of the writing sample, the reasons given for applying to the minor and student's overall academic performance.
- Students are notified of the decision via email prior to the beginning of registration.

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

Not a major

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.

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.

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 term 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

Admission Guidelines

Admission decisions are made on an individual basis and all available information is considered. The criteria are:

- a minimum 2.5 overall grade point average with particular attention given to required courses* for teacher certification.

*Prior to application it is desirable for students to have taken the following: a course in English composition, an introductory psychology course (PSYCH 111 or equivalent); course work toward the teaching major and minor, and course work toward the distribution requirements (*i.e.*, humanities, natural science, and social science for secondary certification, as well as creative arts and mathematics for elementary certification). Although these courses are required to complete the certification program, they are not *required* prior to admission.

- Prior experience with children (*e.g.*, tutor, camp counselor, teacher aide, participation in University of Michigan Project Community or Project Outreach).
- Three letters of recommendation: one from a college or university instructor who can address your academic abilities and two from individuals capable of assessing your ability and potential to become a successful teacher. The first letter **must** come from a college or university instructor in your teaching major.
- a personal statement and, if secondary, a statement related to your proposed major.
- résumé.

Requirements for Teacher Certification

Grade Point Averages and Total Credits.

- An overall GPA of 2.0 based on University of Michigan course work only.
- A GPA of 2.0 in the teaching major and minor based on University of Michigan course work only.
- A minimum of 130 credits.

Distribution:

- If secondary education:

At least 8 credits (from at least two departments) from each of the areas of humanities (including an approved freshman composition course), natural science, and social science (*including PSYCH 111*) as defined on the *LSA website*. Courses in LSA Course Catalog count as designated (*e.g.*, HU, NS, SS). This requirement is 12 credits (from at least two departments) in each area if the student transfers into the School of Education for their degree.

Note: This is the School of Education certification distribution requirement, which is different from the LSA distribution requirement. The same courses may be used for each, but the distribution requirement for each school must be satisfied.

- If elementary education:

- Creative Arts.* 9 credits including two of the following 3 courses: EDUC 427 (3) Art Methods, MUSED 408 (3) Music Methods, PHYSED 336 (3) Children's Rhythms (or PHYSED 255) and 3 credits of electives to meet the requirement.
- Humanities.* 9 credits including English Composition, Philosophy, and one elective.
- Mathematics.* 9 credits including MATH 385, MATH 489, and one elective.
- Natural Sciences.* 9 credits including a minimum of 3 credits in each of the following: biological science, physical science, and earth science.
- Social Sciences.* 9 credits including one course in U.S. history (HISTORY 260 or 261), introductory psychology (PSYCH 111), and one elective designated SS in the *LSA Course Catalog*.

Teaching Major and Minor Options: Students may begin at any time to fulfill the requirements of their specific teaching major and minor. Courses elected to satisfy LSA degree requirements (distribution and major) may be used to meet the requirements for the

teaching major and minor. Please refer to the School of Education website for specific teaching major/minor requirements.

A. *Elementary Education*: Consult the School of Education website and supplemental materials, such as the school's major/minor self-advising handouts which are available at: soe.umich.edu/academics/bachelors_degree_programs/uete/

B. *Secondary Education*: LSA students who are candidates for a secondary teaching certificate *must* select a teaching major and minor. The teaching major is usually the same as the major for the BA/BS degree although the requirements for each may differ. A teaching minor is associated with the teaching certificate and might not be the same as a minor in LSA. The requirements for the various teaching majors and minors are available online at: soe.umich.edu/academics/bachelors_degree_programs/uste/

The required professional education methods course must be completed in the teaching major. Methods courses *must* be elected under the education department number.

Either the teaching major or minor must be in an area in which directed teaching is available.

Departmental Secondary-Level Teaching Majors and Minors

Arabic (*teaching major only*)

Biology

Chemistry

Computer Science (*teaching minor only*)

Economics

English

French

German

Health (*teaching minor only*)

History

Italian (*teaching minor only*)

Latin

Mathematics

Music (*teaching major only*)

Must apply through the School of Music, Theatre & Dance.

Please contact them for more information.

Physical Education

Must apply through the School of Kinesiology.

Please contact them for more information.

Physics

Political Science

Psychology (*teaching minor only*)

Sociology (*teaching minor only*)

Spanish (6-12 or K-12)

Interdepartmental Secondary-Level Teaching Majors and Minors

Earth/Space Science

Integrated Science (Comprehensive or traditional teaching major only)

Social Studies (*teaching major only*)

Professional Requirements

Because the sequence of teacher certification courses is structured, it is necessary for prospective teacher certification students to carefully plan their course schedules **prior** to completion of the sophomore year. Students with education courses completed at another institution must consult the School of Education Teacher Education office regarding the professional requirements. **Education courses may not be elected on a pass/fail basis.**

Elementary Education

1. Required Courses for Fall Term in First Year in Program:

EDUC 307 Practicum in Teaching Methods

EDUC 391 Educational Psychology and Human Development

EDUC 392 Multicultural Society

EDUC 401 Developmental Reading and Writing Instruction in the Elementary School

EDUC 406 Teaching in the Elementary School

2. Required Courses for Winter Term in First Year in Program:

EDUC 392 Education in a Multicultural Society

EDUC 403 Individualizing Reading and Writing Instruction in the Elementary Classroom

EDUC 406 Teaching in Elementary School

EDUC 431 Teaching of the Social Studies in the Elementary School

EDUC 307 Practicum in Teaching Methods

3. Required Courses for Fall Term in Second Year in Program:

EDUC 421 Teaching of Science in the Elementary School

EDUC 411 Teaching Elementary School Mathematics

EDUC 490 Special Topics Courses

EDUC 307 Practicum in Teaching Methods

4. Required Courses for Winter Term in Second Year in Program:

EDUC 301 Directed Teaching in the Elementary Grades

EDUC 303 Seminar: Problems and Principles of Elementary Education

EDUC 490 Special Topics Courses

Secondary Education

Winter cohort is for those who major in mathematics, the sciences, and world languages.

English and social studies majors may choose either fall or winter cohort. Eligibility to begin the program in fall or winter will be determined by progress toward completion of the major, minor and distribution courses; and by random assignment.

Fall cohort is for those who major in physical education and the other half of those who major in English and social studies.

1. Required Courses for First Semester in Program:

EDUC 307 Practicum in Teaching Methods

EDUC 392 Education in a Multicultural Society

EDUC 402 Reading and Writing in the Content Areas

2. Required Courses for Second Semester in Program:

EDUC 307 Practicum 2

Methods for major (various course numbers)

EDUC 391 Educational Psychology and Human Development

3. Required Courses for Third Semester in Program (Student Teaching):

EDUC 302 Student Teaching in the Secondary School

EDUC 304 Seminar: Problems and Principles of Secondary Education

EDUC 490 Special Topics Courses

For information on the prerequisites to student teaching, students should consult the School of Education website at: www.soe.umich.edu

Full-time student teaching is required.

Other Program Requirements

In addition to the requirements of the Teacher Education program, teaching interns must comply with the following State of Michigan certificate requirements.

CPR and First Aid. Michigan Public Act 18 of 2003 requires all teacher candidates to be certified in CPR (Child and Adult) and First Aid prior to being recommended for teacher certification. The legislation stipulates that this training must be completed through the American Red Cross or American Heart Association.

Criminal Background Check and Fingerprinting. Michigan's "School Safety" legislation (2005) requires that all potential employees of public schools in the State of Michigan be fingerprinted and subjected to a criminal background check prior to hire. A teacher candidate can be denied initial certification, or certification can be delayed, if his or her background reveals a felony or certain enumerated misdemeanor convictions.

Michigan Test for Teacher Certification (MTTC). The MTTC Basic Skills and Subject Area tests are designed and administered by the Michigan Department of Education and are meant to ensure that each certified teacher has the necessary basic skills and subject area knowledge to serve in Michigan schools.

Basic Skills Test: Interns in our teacher education programs must take and pass all three sections (reading, math, and writing) of the Basic Skills test prior to the end of their first term in their professional program.

Subject Area Tests: Before being recommended to the state for teacher certification, secondary teaching interns must take and pass the subject area tests in their teaching major(s). As a secondary teaching intern, you can expect to take at least three MTTC tests while in our program. Elementary teaching interns must take and pass the elementary content test and subject area tests in their teaching major(s).

For further information, including registration materials, please visit the MTTC website: www.mttc.nesinc.com.

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.

Certificate Fee. The State of Michigan requires payment of a fee for the provisional teaching certificate. The fee must be paid before the certificate will be granted. For current Michigan Department of Education certificate fees, go to: www.michigan.gov/mde and search under "certification fee."

University Courses

2242 LSA 1382
500 South State Street
(734) 615-9653 (phone)

Not a major

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 enroll-

ment 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.lsa.umich.edu/women

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.

Women's Studies Major

May be elected as a departmental major

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.

Requirements for the Major. 33 credits (at least 25 must be at the 300-level 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 425. Feminist Practice of Oral History.

SOC 389, Project Community: *Gender and Sexuality* section

D. **Senior Seminar:** WOMENSTD 440. Senior Capstone.

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.

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.

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.lsa.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.

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 pre-requisite) 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.

Women's Studies 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.lsa.umich.edu/women.

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 291. Introduction to the Psychology of Women and Gender
 WOMENSTD 300. Men's Health
 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 365. Global Perspectives on Gender, Health, and Reproduction
 WOMENSTD 400. Women's Reproductive Health
 WOMENSTD 402. Gender and Health Policy
 WOMENSTD 405. Pharma, Pills, & Policy
 WOMENSTD 407. Intersexualities
 WOMENSTD 411. Reproductive Justice
 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, 411, 412, 438, 443, 494.

Courses with a transnational, global, historical perspective: WOMENSTD 307, 324, 328, 365, 412, 438.

Gender, Race, and Nation

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 235. Harems to Terrorists: Representing the Modern Middle East in Hollywood Cinema
 WOMENSTD 243. Latinas in the U.S.
 WOMENSTD 270. Gender and the Law
 WOMENSTD 293. 20th-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 20th-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 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 354. Race and Identity in Music
 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

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 con-

structions, 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 225. Psychology of Human Sexuality
 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 366. Sex and Sexuality in U.S. Popular Culture
 WOMENSTD 390. Homophobia in the Black World
 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 431. Advanced Topics in LGBTQ 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.

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.

www.lsa.umich.edu/students/academicsrequirements/majorsminors

Course Information:

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

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LSA Degree Requirements

The College awards three basic degrees, the Bachelor of Arts (A.B.), the Bachelor of Science (B.S.), and the Bachelor in General Studies (B.G.S.). The Bachelor of Science in Chemistry (B.S. Chem.) is also granted.

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

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 in under "Chemistry."

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 (AB) or Bachelor of Science (BS) 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 Academic Advising Center. They are knowledgeable and experienced staff members familiar with the 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 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

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 Upper-Level Writing Requirement courses.

The Sweetland Center for Writing believes that students:

- need regular practice to learn to write well;
- learn best about a subject by writing about it; and
- should be able to recognize and employ the writing conventions of their chosen discipline.

Courses offered to fulfill these writing requirements 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 by using the "Skills Req" drop-down menu and checking the appropriate box to locate "Upper Level" or "First Year" writing requirement courses offered.

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.

FYWR courses assign writing tasks designed to help students:

- produce complex, analytic, well-supported arguments that matter in academic contexts;
- read, summarize, analyze, and synthesize complex texts purposefully in order to generate and support writing;
- demonstrate an awareness of the strategies that writers use in different rhetorical situations;
- develop flexible strategies for organizing, revising, editing, and proofreading writing of varying lengths to im-

prove development of ideas and appropriateness of expression; and

- collaborate with peers and the instructor to define revision strategies for particular pieces of writing, to set goals for improving writing, and to devise effective plans for achieving those goals.

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;
- 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.

Placement. Rather than placing students in a specific course, first-year students (except LSA Honors and RC) are asked to complete the Directed Self-Placement (DSP) to help them judge their own readiness for and comfort with college-level writing. Prior to attending Orientation, students complete an online reading and writing assignment and answer questions about that experience and their previous writing experiences. When meeting with their advisor during Orientation, students receive a course recommendation based upon their responses to the DSP essay and questions, evaluate themselves as writers, discuss their course recommendation, and choose a writing course that will enable them to become more proficient and confident in college-level academic writing. Students' DSP essays are sent to the instructor of their first writing course as an introduction to their writing and to help instructors work with students to identify strengths and areas for improvement.

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.lsa.umich.edu/sweetland/writingrequirements/firstyearwritingrequirement/transfercourses

This webpage also provides information on what steps to take if the transfer course is not on either list.

Upper-Level Writing Requirement (ULWR)

The goal of the Upper-Level Writing Requirement is to teach students to recognize and employ the writing conventions of their chosen major or discipline.

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:

- logically organize their thoughts into writing;
- use clear and concise language;
- analyze information effectively;
- incorporate appropriate evidence into their analyses; and
- understand the central concepts, approaches, materials and written conventions in their chosen major or discipline.

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.

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 or 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 QR credit (QR/2).

Advanced Placement (AP) courses may not be used to meet the Quantitative Reasoning requirement.

Courses transferred from another college or university do not generally carry QR credit, except in the following circumstances:

1. QR is considered fulfilled for all science, math, and computer science majors who transfer in the required prerequisite courses;

2. Transfer credit of at least three credits for PHYSICS 125, 126, 140, 240, or a statistics course receive (QR/1) credit.

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.lsa.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 hon- or 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 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
- Health and Fitness (HF): 220/221, 240, 241, 331, 333, 434, 437
- Kinesiology (KINESLGY) 302, 421, 422, 424, 437, 441, 442, 443, 444, 445, 471, 513, 533, 542
- Movement Science (MOVESCI) 110, 230, 231, 240, 241, 250, 280, 320, 330, 340, 421, 422, 424, 432, 433, 437, 441, 442, 443, 445, 471

- Physical Education (PHYSED) 444
- Sport Management (SM) 101 (No credit for LSA students with junior or senior standing), 111, 203, 217, 249, 332, 333, 342, 346, 431, 434, 437, 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.
5. Transfer credit for Speech and Journalism courses are counted as non-LSA.
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 or Residential College 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.

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.
 - African Languages (AAS 226)
 - Akan/Twi, Bambara/Bamana, Wolof, Zulu/IsiZulu
 - American Sign Language (LING 251 or RCCORE 204)
 - Arabic
 - Classical (AAPTIS 582)
 - Modern Standard (one of: AAPTIS 202, 204, 205, 216, 218, 419, 420)
 - Armenian
 - Eastern (AAPTIS 282 or ARMENIAN 282)

Western (AAPTIS 272 or 273, or ARMENIAN 272 or 273)
 Bosnian, Croatian, and Serbian (BCS 232 or 225)
 Central Asian Languages (AAPTIS 250 or ASIANLAN 250)
 Uzbek, Kazakh, Uyghur, Pashto, or Tajik
 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 291, or RCLANG 291)
 Greek
 Classical (GREEK 301 and 302, or 405)
 Biblical (GREEK 307 and 308, or ACABS 307 and 308)
 Modern (MODGREEK 202)
 Hebrew
 Classical (ACABS 202)
 Modern (HJCS 202 or 210)
 Hindi (ASIANLAN 216 or 217)
 Indonesian (ASIANLAN 222)
 Italian (ITALIAN 232 or 230)
 Japanese (ASIANLAN 226 or 227 or 229, or RCLANG 296)
 Korean (ASIANLAN 236 or 237 or 238)
 Latin (LATIN 232 or 233 or 295, or RCLANG 295)
 Ojibwe (AMCULT 323)
 Persian (AAPTIS 242 or 243)
 Polish (POLISH 222)
 Portuguese (PORTUG 232 or 230)
 Punjabi (ASIANLAN 246)
 Quechua (LACS 474)
 Russian (RUSSIAN 202 or 203 or 223 or 325, or RCLANG 293)
 Sanskrit (ASIANLAN 252)
 Spanish (SPANISH 230 or 232, or RCLANG 294)
 Swahili (AAS 216)
 Swedish (SCAND 234)
 Thai (ASIANLAN 262)
 Tibetan
 Classical (ASIANLAN 468)
 Modern (ASIANLAN 266)
 Turkish (AAPTIS 252 or 255)
 Ukrainian (UKR 252 or 203)
 Urdu (ASIANLAN 272)
 Uzbek (AAPTIS 253)
 Vietnamese (ASIANLAN 276)
 Yiddish (YIDDISH 202 or JUDAIC 202)

Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Academic Standards Board.

- 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).
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):

Art & Design (ARTDES)

- 110. Digital Studio I
- 170. Drawing for Non-Majors
- 171. Printmaking for Non-Majors
- 172. Painting for Non-Majors
- 173. Digital Photography for Non-Majors
- 174. Watercolor for Non-Majors
- 175. Life Drawing for Non-Majors
- 176. Graphic Imaging for Non-Majors
- 177. Metals for Non-Majors
- 178. Animation for Non-Majors
- 179. Sculpture for Non-Majors
- 181. Clay for Non-Majors
- 182. Wood for Non-Majors
- 220. Tools, Materials & Processes Studio III: Time
- 230. Concept Form and Context Studio II
- 231. Concept Form and Context Studio III

Architecture (ARCH)

- 201. Basic Drawing
- 202. Graphic Communication
- 218. Visual Studies

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) mini-courses
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.

Students normally declare a major during the second term of the sophomore year. To declare a major, a student should contact the appropriate department and make an appointment with a department advisor. After developing a plan for the major with the student, the department advisor has the major entered on the student's record.

A student may change the plan for the major with the approval of the department advisor.

Students may change majors after meeting with a department advisor in a different department.

Policies for Majors

- Each A.B. or B.S. student must develop a plan for the major in consultation with a department advisor, who must also approve it.
- Course requirements for the various majors range from 24 to 48 credits at the 200-level and above.
- 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.
- 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.
- Students electing an area, interdepartmental, or special major may count no more than 60 credits in any one department.
- Students may not elect courses in a major, including required cognates, using the Pass/Fail grading option.
- 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.
- No course from the department of the major or a required course in a major may be part of a distribution plan (see, however, "Double major" below).
- A student must earn an overall GPA of at least 2.0 in courses taken in the field of 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 description for the major.
- Courses that are part of the student's major may also meet the Upper-Level Writing Requirement, the Race & Ethnicity Requirement, or the Quantitative Reasoning Requirement.
- 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..

Majors

Afroamerican and African Studies (AAS)
 American Culture
 Ancient Civilizations and Biblical Studies (ACABS)
 Anthropology
 Arabic, Armenian, Persian, Turkish, and Islamic Studies (AAPTIS)
 Arts and Ideas in the Humanities
 Asian Studies
 Astronomy and Astrophysics
 Biochemistry
 Biology
 Biomolecular Science
 Biophysics
 Biopsychology, Cognition, and Neuroscience (BCN)
 Cell and Molecular Biology (CMB)
 Cell and Molecular Biology and Biomedical Engineering
 Chemical Science
 Classical Archaeology
 Classical Civilization
 Classical Languages and Literatures
 Cognitive Science
 Communication Studies
 Comparative Literature
 Computer Science
 Creative Writing and Literature
 Drama
 Earth and Environmental Sciences
 Earth Systems Science
 Ecology and Evolutionary Biology (EEB)
 Economics
 English
 Environment
 Evolutionary Anthropology
 French and Francophone Studies
 General Biology
 German
 Greek (Ancient) Language and Literature
 Greek (Modern) Language and Culture
 Hebrew and Jewish Cultural Studies (HJCS)
 History
 History of Art
 Individual Major Program (IMP)
 Informatics
 Interdisciplinary Astronomy
 Interdisciplinary Chemical Sciences (ICS)
 Interdisciplinary Physics
 International Studies
 Italian

Judaic Studies
 Latin
 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 Civilizations (NEC)
 Neuroscience
 Organizational Studies (OS)
 Philosophy
 Philosophy, Politics, and Economics (PPE)
 Physics
 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
 Statistics
 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.

See "Graduation Procedures" below concerning double major graduation policies.

Requirements Particular to the B.S.Chem. Degree

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 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 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 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.

The Chemistry department requires that a student earn a grade of at least C- in all CHEM courses and mathematics and physics courses which are prerequisite for subsequent elections.

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, 241/242, and 260 or 370; PHYSICS [135/136 or 140/141] and [235/236 or 240/241]; and MATH 115, 116, 215, 216, or an equivalent sequence are required. 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.

B.S. Chemistry Degree Course Requirements

CHEM 302 or 303, 402, 447, 461, 462, 463, 480, 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 (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 of the minors offered by units within the College. Electing to earn a minor is optional, and there is no limit on the number of minors a student may elect. Minors, along with their requirements and other pertinent information, are described in detail on 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

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 used to satisfy the requirements of more than one minor.
8. No course may be shared between the requirements of two minors, or between a minor and an undergraduate certificate.
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. Advanced Placement 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.
15. Students may not add, complete, or declare a minor after graduation.

Minors

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)
 Asian Languages and Cultures (Asian Languages and Cultures)
 Asian Studies (Asian Languages and Cultures)
 Asian/Pacific Islander American Studies (Program in American Culture)
 Astronomy and Astrophysics (Astronomy)
 Biochemistry (Chemistry)
 Biological Anthropology (Anthropology)
 Biology (Program in Biology)
 Biophysics (Program in Biophysics)
 Bosnian/Croatian/Serbian Literature and Culture (Slavic Languages and Literatures)
 Business (Ross School of Business)
 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)
 Community Action and Social Change (School of Social Work)
 Complex Systems (Center for the Study of Complex Systems)
 Computer Science (Electrical Engineering and Computer Science)
 Creative Writing (English Language and Literature)
 Crime and Justice (Residential College)
 Cultures & Literatures of Eastern Europe (Slavic Languages and Literatures)
 Czech Language, Literature, and Culture (Slavic Languages and Literatures)
 Design and Production (Theatre and Drama)
 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)
 Ecology and Evolutionary Biology (Ecology and Evolutionary Biology)
 Economics (Economics)
 Electrical Engineering (Electrical Engineering and Computer Science)
 Environment (Program in the Environment)
 Environmental Geology (Earth and Environmental Sciences)
 Epistemology and Philosophy of Science (Philosophy)
 French and Francophone Studies (Romance Languages and Literatures)

Gender and Health (Women's Studies Program)
 Gender, Race, and Nation (Women's Studies Program)
 General Philosophy (Philosophy)
 Geology (Earth and Environmental Sciences)
 German Studies (Germanic Languages and Literatures)
 Global Change (Program in the Environment)
 Global History (History)
 Global Media Studies (Screen Arts and Cultures)
 Global Theatre and Ethnic Studies (Theatre and Drama)
 Greek (Ancient) Language and Literature (Classical Studies)
 Greek (Modern) Language and Culture (Classical Studies)
 History (History)
 History of Art (History of Art)
 History of Medicine and Health (History)
 History of Philosophy (Philosophy)
 Interdisciplinary Astronomy (Astronomy)
 International Studies (Center for International and Comparative Studies)
 Islamic Studies (Islamic Studies Program)
 Italian (Romance Languages and Literatures)
 Judaic Studies (Frankel Center for Judaic Studies)

Latin American and Caribbean Studies (Latin American and Caribbean Studies Program)
 Latin Language and Literature (Classical Studies)
 Latina/o Studies (Program in American Culture)
 Law, Justice, and Social Change (Sociology)
 Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ) and Sexuality Studies (Women's Studies Program)
 Linguistics (Linguistics)
 Mathematics (Mathematics)
 Medical Anthropology (Anthropology)
 Medieval and Early Modern Studies (Medieval and Early Modern Studies)
 Mind and Meaning (Philosophy)
 Modern Middle Eastern and North African Studies (Center for Middle Eastern and North African Studies)

Modern European Studies (Center for European Studies)
 Moral and Political Philosophy (Philosophy)
 Museum Studies (Museum Studies)
 Music (University of Michigan School of Music, Theatre & Dance)
 Native American Studies (Program in 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)
 Performing Arts Management (Theatre and Drama)
 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 (Residential College)
 Spanish Language, Literature, and Culture (Romance Languages and Literatures)
 Statistics (Statistics)
 Sustainability (Program in the Environment)
 Sustainable Food Systems (Program in the Environment)
 Translation Studies (Comparative Literature)
 Ukrainian Language, Literature, and Culture (Slavic Languages and Literatures)
 Urban Studies (Residential College)
 Writing (Sweetland Center for Writing)

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).

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. Supplemental studies, along with their requirements and other pertinent information, are described in detail on the LSA website at:

www.lsa.umich.edu

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

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

Consult the individual department listing (as shown in parentheses) for a description of the Supplemental Studies Program.

- [Entrepreneurship, Program in](#) (Center for Entrepreneurship, College of Engineering)
- [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.

Joint Undergraduate Degree Programs

Architecture (Joint Program in Liberal Arts and B.S. in Architecture)

Students enrolled in the College of Literature, Science, and the Arts wishing to consider joint degree programs, in which the B.S. 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. (This program is distinct from the *Pre-Professional Program in Architecture* described later in this chapter.)

Art & Design (Joint Degree Program in Liberal Arts and Art & Design)

The Penny W. Stamps School of Art & Design offers dual admission to entering students who wish to pursue two degree programs. Dual admission allows students the freedom and ease to explore the educational opportunities of more than one discipline beginning in their first year of enrollment.

Program

The Stamps School of Art & Design offers a Bachelor of Arts in Art & Design, a Bachelor of Fine Arts in Art & Design, and a Bachelor of Fine Arts in Interarts Performance.

The LSA/Art & Design joint degree programs are intended for students whose educational goals include earning undergraduate degrees from both the School of Art & Design and LSA. 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 colleges. Students must meet all the requirements of both degree programs. Of the minimum credits elected to satisfy the dual degree program, at least 100 credits must be LSA courses.

Bachelor of Arts in Art & Design

At least 150 credits are required to earn both an LSA degree and the Bachelor of Arts in Art & Design. Of the minimum 150 credits elected, at least 100 credits must be LSA courses.

The B.A. in Art & Design is the appropriate degree for students who want a rigorous education in art and design with the flexibility of a liberal arts education. Students who are interested in pursuing a substantive portion of their education through academic studies, athletics, pre-health, and pre-law students are excellent candidates for a B.A.

Bachelor of Fine Arts in Art & Design or Bachelor of Arts in Interarts Performance

At least 170 credits (and ten semesters of work) are required to earn both an LSA degree and either of the Bachelor of Fi-

ne Arts degrees. Of the minimum 170 credits elected, at least 100 credits must be LSA courses.

The BFA in Art & Design prepares graduates for a broad range of eventualities, integrates art and design methodologies, interweaves traditional techniques with contemporary technologies, bridges the personal to the social, and engages the rich resources of the University and the community.

The interdisciplinary BFA in Interarts Performance will be attractive to students who have interests in both the visual arts and theater as well as a desire to create original performance pieces.

For more information about the LSA/Art & Design joint degree programs, contact the School of Art & Design, (734) 764-0397 or email:

a&d@umich.edu.

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 the college in which they originally enrolled. Students not in good academic standing are subject to the academic discipline policies 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 (SMTD). 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. (This program is distinct from the *Pre-Professional Program in Architecture* described later in this chapter.)

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. Specific requirements are listed under the Molecular, Cellular and Developmental Biology Department.

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 credit hours of courses that are "double-counted" in this fashion, it is possi-

ble 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 \(Office of Student Academic Affairs\)](#)
 - *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) 764-5425
sph.inquiries@umich.edu

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 Academic Calendar, 2014-15

	Fall Term 2014	Winter Term 2015	Spring Term 2015	Summer Term 2015	Spring/Summer Term 2015
Last day to disenroll from term without fees	September 1, Monday	January 6, Tuesday	May 4, Monday	June 30, Tuesday	May 4, Monday
Classes begin; Disenrollment and registration fees begin to apply	September 2, Tuesday	January 7, Wednesday	May 5, Tuesday	July 1, Wednesday	May 5, Tuesday
Last day to withdraw (100% tuition waiver less disenrollment and registration fees) for tuition adjustment for a reduced academic load for regular drop/add (no "W" for drop) Pass/fail deadline	September 22, Monday	January 27, Tuesday	May 18, Monday	July 14, Tuesday	May 26, Tuesday
Authorization needed to drop or add; "W" posted for drops	Beginning September 23, Tuesday	Beginning January 28, Wednesday	Beginning May 19, Tuesday	Beginning July 15, Wednesday	Beginning May 27, Wednesday
Deadline to finish incompletes	September 29, Monday	February 3, Tuesday	TBD	TBD	TBD
Last day to withdraw from all classes with a 50% tuition waiver	October 13, Monday	February 17, Tuesday	May 26, Tuesday	July 21, Tuesday	June 15, Monday
Begin full fees for students who withdraw	October 14, Tuesday	February 18, Wednesday	May 27, Wednesday	July 22, Wednesday	June 16, Tuesday
Last day for approved late drop/add	November 7, Friday	March 20, Friday	June 5, Friday	July 31, Friday	July 10, Friday
Classes end	December 10, Wednesday	April 21, Tuesday	June 22, Monday	August 18, Tuesday	August 18, Tuesday
Study days	December 11, Thursday December 13-14, Saturday-Sunday	April 22, Wednesday April 25-26, Saturday-Sunday	June 23-24, Tuesday-Wednesday	August 19, Wednesday	August 19, Wednesday
Examination period	December 12, Friday December 15-19, Monday-Friday	April 23-24, Thursday-Friday April 27-30, Monday-Thursday	June 25-26, Thursday-Friday	August 20-21, Thursday-Friday	August 20-21, Thursday-Friday
No Classes	Labor Day Holiday: September 1, Monday	Martin Luther King, Jr. Birthday University Symposia (no regular classes): January 19, Monday	Memorial Day Holiday: May 25, Monday	Independence Day Holiday: July 3, Friday	Memorial Day Holiday: May 25, Monday Independence Day Holiday: July 3, Friday
Recess	Fall Study Break: October 13-14, Monday-Tuesday Thanksgiving Recess: November 26 (5:00 p.m.), Wednesday through December 1 (8:00 a.m.), Monday	Mid-Winter Recess: February 28 (12:00 noon), Saturday through March 9 (8:00 a.m.), Monday			
Tuition Payments	August 31 (5:00 p.m.), Sunday	January 7 (5:00 p.m.), Wednesday	April 30 (5:00 p.m.), Thursday	June 30 (5:00 p.m.), Tuesday	April 30 (5:00 p.m.), Thursday
Commencement	December 14, Sunday	May 2, Saturday			
University Honors Convocation		March 15, Sunday			