

College of Liberal Arts and Sciences

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www.asu.edu/clas



The College of Liberal Arts and Sciences offers programs that encompass the humanities, social and behavioral sciences, and natural sciences.

Clockwise from top center: Michael Martin photo; John MacIsaac photos (two); Tim Trumble photos (two)

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PURPOSE

Like all major research universities, Arizona State University provides the means for undergraduates to acquire a liberal education, an education that broadens students' understanding in the major areas of human knowledge while providing students with in-depth knowledge in their chosen areas of focus. While the professional schools and colleges can and do provide for important dimensions of a liberal education, the central academic setting for accomplishing this basic university purpose is the College of Liberal Arts and Sciences (CLAS). The college provides a particularly rich and varied set of opportunities for students to gain the kind of liberal education that helps to prepare them for a lifetime of continued learning and application of knowledge in a diverse and ever-changing world.

As a consequence of the wide range of subjects CLAS offers in the humanities, the natural sciences and mathematics, and the social and behavioral sciences, instruction is provided in a number of core areas for undergraduate students from all of the other colleges. Students with majors in business, education, engineering, nursing, and other professional colleges rely on CLAS for basic foundation courses. CLAS also offers the majority of courses meeting the General Studies requirement.

CLAS initiated and continues to participate actively with the University Honors College. It also offers advising to undergraduates who are working out their undergraduate programs or are planning for graduate studies.

Most of the university faculty's engagement in the discovery and creation of knowledge and its dissemination occurs in CLAS. As an integral part of this activity, CLAS offers a wide range of graduate training programs leading to a master's or doctoral degree. For graduate degree application information, see the *Graduate Catalog* and contact either the Graduate College or the academic unit in which the degree of interest would be earned, the latter in order to receive detailed information on particular degree requirements.

ORGANIZATION

CLAS consists of 23 academic departments, several interdisciplinary programs, seven centers, and several research institutes and laboratories. The college offers 38 programs leading to a bachelor's degree, 28 programs leading to a master's degree, 21 programs leading to a doctoral degree, and interdisciplinary graduate programs in cooperation with other colleges. Undergraduate customized interdisciplinary degrees are also available in the college.

For more information, visit the college's Web site at www.asu.edu/clas.

ADMISSION

Any entering ASU student who has met the minimum university entrance requirements can be admitted to CLAS. Students with fewer than 50 earned hours of credit can, if they wish, be admitted as "no preference" students. Students with 50 or more hours must declare a major to be accepted into the college.

Any student with a cumulative GPA of at least 2.00 who is currently registered in good standing in another college at ASU and who wishes to major in a subject offered by CLAS and to follow a program of study in the major may transfer

into the college. (Students wishing to transfer into the majors of Computer Science or Economics must have an ASU cumulative GPA of at least 2.50.) The student transfers by applying and being initially advised in the Office for Academic Programs, SS 111. Students admitted from other ASU colleges are under mandatory advising during the first semester and must take courses leading directly to a degree in CLAS. Failure to follow mandated advice on course selection can result in enrollment and registration problems, including cancellation and holds.

Transfer Students. The university standards for evaluation of transfer credit are listed under "Transfer Credit," page 65. All students who meet the university standards are admissible to CLAS, but students desiring to major in either Computer Science or Economics must have transfer GPAs of at least 2.50. Transfer students are urged to contact the relevant academic department or the Office for Academic Programs, SS 111, to ensure a smooth transition to CLAS. Students who have transferred courses from institutions other than Arizona community colleges must have their transcripts evaluated by an advisor in SS 111. Students who have attended only Arizona community colleges have evaluations performed in the department of the major.

Courses transferred from two-year (community) colleges are accepted as lower-division credit only. Students are urged to choose their community college courses carefully, in view of the fact that a minimum of 45 semester hours of work taken at the university must be upper-division credit (see "Community Colleges," page 65).

"Undecided" or "Undeclared" Majors. Students in CLAS are not required to select a major upon entering the college as freshmen or at any time thereafter until the semester in which 60 semester hours are earned. Until such "no preference" students have chosen a major, they are advised through Cross-College Advising Services, in the Undergraduate Academic Services Building. It is important to consult an academic advisor before any enrollment activity. Before or during the semester in which they earn 60 semester hours, students *must* select their major and transfer into the appropriate department.

Note: Students who wish to enter a program of study that has a rigidly structured curriculum should be aware that delay in choosing a major could result in added time and cost in the completion of requirements.

ADVISING

All students are urged to seek advising in the appropriate college unit before registration. Students must follow the calendar published in the *Schedule of Classes* each semester for information regarding enrollment, adding/dropping classes, and withdrawals.

Regular Advising. All students are strongly urged to seek advising in the appropriate college unit before registration.

Advising Locations. CLAS students should seek routine advising at the locations shown in the "Advising Locations" table, page 332.

The Office for Academic Programs, located in SS 111, is the central resource center for academic information in the college. Requests from students, departmental advisors, and faculty for clarification of rules, procedures, and advising

needs of the college and university should be directed to that office.

Advising Locations

Student	Location
Declared majors	Department of major
No preference; no preference, prelaw	Cross-College Advising Services, UASB (480/965-4464)
No preference, premedical	LSC 206C (480/965-2365)

Mandatory Advising. The following categories of Liberal Arts and Sciences students *must* receive advising and *must* be cleared on the Mandatory Advising Computer System (MACS) before their classes are scheduled:

1. students in their first semester at ASU;
2. students on probation;
3. students with a cumulative GPA of less than 2.00;
4. students who have admissions deficiencies;
5. other students with “special admissions” status; and
6. students who have been disqualified (these students are allowed to attend ASU summer and winter sessions only and must be advised in the Office for Academic Programs, SS 111).

Students in the above mandatory advising categories should consult an advisor in the appropriate advising location listed in the previous section. Students with admission deficiencies are carefully monitored to ensure that they take courses that eliminate their deficiencies. Students are encouraged to check their mandatory advising status each semester before attempting registration transactions.

Advising for Preprofessional Programs

Professional Field	Office Where Advisor Is Located
Dentistry ^{1,2}	Pre-Health Professions, LSC 206C
Foreign service	Department of chosen major
Health physics	Pre-Health Professions, LSC 206C
Law	Office for Academic Programs, SS 111
Medicine ¹	Pre-Health Professions, LSC 206C
Ministry	Department of Religious Studies, LL 641
Occupational therapy ¹	Pre-Health Professions, LSC 206C
Optometry ^{1,2}	Pre-Health Professions, LSC 206C
Osteopathy ¹	Pre-Health Professions, LSC 206C
Pharmacy ¹	Pre-Health Professions, LSC 206C
Physical therapy ¹	Pre-Health Professions, LSC 206C
Podiatry ^{1,2}	Pre-Health Professions, LSC 206C

¹ Students preparing for a career in these areas should register in the Pre-Health Professions office, 480/965-2365.

² No school in Arizona offers a program in dentistry, optometry, or podiatry. Students interested in pursuing these professions should confer with the Pre-Health Professions advisor concerning out-of-state schools where they may complete their training.

Advising for Preprofessional Programs. Special advising is available for students planning to enter the fields listed in the “Advising for Preprofessional Programs” table, on this page. The professional programs shown in the table are not majors in themselves; that is, there are no majors called “premedical,” “prelaw,” etc. In each program, the student must eventually select an established major in CLAS or in one of the other colleges.

DEGREES

Majors. Programs leading to the B.A. and B.S. degrees are offered by CLAS, with majors in the subjects listed in the “College of Liberal Arts and Sciences Baccalaureate Degrees and Majors” table, page 333. Each major is administered by the academic department indicated.

Minors. Although not required for graduation, special college-approved minors are available in most departments. Check department program descriptions for details. Minors offered by departments must have at least 18 hours of designated courses, including at least 12 hours of upper-division work. The college requires a grade of at least “C” in all upper-division courses in the minor. Some departments have stricter requirements. A minimum of six upper-division hours in the minor must be taken in residence at ASU Main.

University policies prohibit the “double-counting” of courses from the major for the minor. Specific questions concerning double-counting, as well as general questions about the approval processes for minors, should be taken up with an academic advisor in the department offering the minor or the Office for Academic Programs, SS 111.

Refer to the CLAS portion of the “ASU Minors” table, page 111.

UNIVERSITY GRADUATION REQUIREMENTS

In addition to fulfilling college and major requirements, students must meet all university graduation requirements. For complete information, see “University Graduation Requirements,” page 83.

General Studies Requirement

All students enrolled in a baccalaureate degree program must satisfy a university requirement of a minimum of 35 hours of approved course work in General Studies, as described in “General Studies,” page 87. Note that all three General Studies awareness areas are required. Consult your advisor for an approved list of courses.

General Studies courses are listed in the “General Studies Courses” table, page 90, in the course descriptions, in the *Schedule of Classes*, and in the *Summer Sessions Bulletin*.

COLLEGE DEGREE REQUIREMENTS

CLAS degree requirements are more extensive than the General Studies requirement. Additional course work in the humanities, natural sciences and mathematics, and social and behavioral sciences is required. Students are encouraged to consult with an academic advisor in planning a program to ensure that they meet all necessary requirements.

College of Liberal Arts and Sciences Baccalaureate Degrees and Majors

Major	Concentration	Degree	Administered By
African American Studies	Humanities/arts, politics and society, social and behavioral sciences	B.A.	African American Studies Program
Anthropology	—	B.A.	Department of Anthropology
Asian Languages (Chinese/Japanese)	—	B.A.	Department of Languages and Literatures
Biochemistry	—	B.S.	Department of Chemistry and Biochemistry
Biology	Biology and society	B.S.	Department of Biology
Chemistry	—	B.A., B.S.	Department of Chemistry and Biochemistry
Chicana and Chicano Studies	Humanities/cultural sciences, social sciences/policy	B.A.	Department of Chicana and Chicano Studies
Clinical Laboratory Sciences	—	B.S.	Department of Microbiology
Computer Science	—	B.S. ¹	Department of Computer Science and Engineering
Conservation Biology	—	B.S.	Department of Biology
Economics	—	B.A., B.S. ²	Department of Economics
English	Linguistics, literature	B.A.	Department of English
Exercise Science/ Physical Education	Exercise and wellness, exercise science, physical education	B.S.	Department of Exercise Science and Physical Education
Family Resources and Human Development	Family studies/child development	B.S.	Department of Family Resources and Human Development
French	—	B.A.	Department of Languages and Literatures
Geography	Meteorology-climatology, urban studies	B.A., B.S.	Department of Geography
Geology	—	B.S.	Department of Geology
German	—	B.A.	Department of Languages and Literatures
History	—	B.A.	Department of History
Humanities	—	B.A.	Interdisciplinary Humanities Program
Integrated Studies	—	B.A., B.S.	College of Liberal Arts and Sciences
Italian	—	B.A.	Department of Languages and Literatures
Mathematics	—	B.A.	Department of Mathematics
Mathematics	Computational mathematical sciences	B.S.	Department of Mathematics
Microbiology	—	B.S.	Department of Microbiology
Molecular Biosciences/ Biotechnology	—	B.S.	Departments of Microbiology and Plant Biology
Philosophy	Ethics, history and philosophy of science	B.A.	Department of Philosophy
Physics	Emphasis: astronomy Options: I, II	B.S.	Department of Physics and Astronomy
Plant Biology	Environmental science and ecology, plant biochemistry and molecular biology, urban horticulture	B.S.	Department of Plant Biology
Political Science	Public policy advocacy and lobbying, public policy analysis	B.A., B.S.	Department of Political Science
Psychology	—	B.A., B.S.	Department of Psychology
Religious Studies	—	B.A.	Department of Religious Studies
Russian	—	B.A.	Department of Languages and Literatures
Sociology	—	B.A.	Department of Sociology
Spanish	—	B.A.	Department of Languages and Literatures
Speech and Hearing Science	—	B.S.	Department of Speech and Hearing Science
Women's Studies	—	B.A., B.S.	Women's Studies Program

¹ The department is in the College of Engineering and Applied Sciences, which also offers this major, with different requirements.

² The department is in the College of Business, which also offers this major, with different requirements.

To graduate from CLAS, a student must satisfy separate requirements of two kinds in addition to the General Studies requirement: *major requirements* involve concentrated course work in one field; CLAS graduation requirements ensure the student demonstrates proficiency in a second language. In addition, these requirements expose the student to other liberal arts and sciences outside the major field.

I. Major Requirements. Each student is required to select a major from among the fields of study offered by CLAS. The requirements for completion of the major are described under departmental listings.

A. The major department may require up to 45 semester hours of course work. The minimum is 30 hours. A maximum of 15 additional hours may be required in related courses and prerequisites. No more than 60 semester hours of course work may be required to complete the major, related courses, and prerequisites. Some departments require calculus-level mathematics; up to five of these semester hours may be excluded from the 60-hour maximum because they satisfy the mathematics proficiency requirement. A minimum of 12 upper-division hours in the major must be taken in residence at ASU Main.

B. No credit is granted toward fulfilling major or minor requirements in any upper-division course in that subject field unless the grade in that course is at least a "C." In CLAS, the assignment of a grade of "Y" indicates a level of performance that would have resulted in a grade of at least "C" had the normal grading scheme been used. In addition, each major in CLAS requires students to earn a "C" grade minimum in the math courses used to fulfill the General Studies math requirement. Please see the individual departments for other minimum grade requirements.

In addition, each major in CLAS requires students to earn a "C" minimum in the math course used to meet the General Studies math requirement. Please see the individual departments for other minimum grade requirements.

C. Major fields of study are classified into the following three divisions:

1. Humanities:

- African American Studies
- Asian Languages (Chinese/Japanese)
- Chicana and Chicano Studies
- English (Linguistics students must take two upper-division literature or film courses to meet CLAS graduation requirements in Humanities.)
- French
- German
- Humanities

- Italian
- Philosophy
- Religious Studies
- Russian (Only meets CLAS graduation requirements in Humanities if at least two upper-division literature or civilization courses are taken.)

Spanish

2. Natural sciences and mathematics:

- Biology
- Biochemistry
- Chemistry
- Clinical Laboratory Sciences
- Computer Science
- Conservation Biology
- Geology
- Mathematics
- Microbiology
- Molecular Biosciences/Biotechnology
- Physics
- Plant Biology

3. Social and behavioral sciences:

- African American Studies
- Anthropology
- Chicana and Chicano Studies
- Economics
- Exercise Science/Physical Education (Students majoring in this field must satisfy the CLAS graduation requirements in all three divisions.)
- Family Resources and Human Development (Students majoring in this field must satisfy the CLAS graduation requirements in all three divisions.)
- Geography
- History
- Political Science
- Psychology
- Sociology
- Speech and Hearing Science (Students majoring in this field must satisfy the CLAS graduation requirements in all three divisions.)
- Women's Studies

II. CLAS Graduation Requirements. The purpose of the CLAS graduation requirements is to ensure that the student is introduced to disciplines outside the division of the major. A list of major fields and their respective divisions is given under I.C.

Unless the major field notes otherwise in I.C, students are considered to have fulfilled the CLAS graduation requirements in the division of the major.

Students majoring in Exercise Science/Physical Education, Family Resources and Human Development, and Speech and Hearing Science must satisfy CLAS

graduation requirements in social behavioral sciences as well as in the other two divisions. Students majoring in African American Studies or Chicana and Chicano Studies satisfy either the CLAS graduation requirements in the humanities or the social and behavioral sciences, depending upon their concentrations.

Students majoring in Anthropology, Geography, or Psychology may not use ASM courses in the case of Anthropology majors, GPH courses in the case of Geography majors, or PSY courses in the case of Psychology majors to satisfy the CLAS graduation requirements in the natural sciences and mathematics.

Note: Courses used to fill the university General Studies requirement may not be used to fill CLAS graduation requirements in the humanities, social and behavioral sciences, and the natural sciences and mathematics.

A. Humanities (six to nine semester hours). Each student is required to complete two to three courses of at least three semester hours each. Course prefixes are identified in the following section. At least two courses must be at the 300 or 400 level.

Course prefixes for the CLAS graduation requirement in the Humanities:

1. AFH (African American Studies Program)
2. CSH (Department of Chicana and Chicano Studies)
3. ENG (Department of English; any literature course, including ENG 200 and 218)
4. CHI, FLA, FRE, GER, GRK, HEB, ITA, JPN, LAT, POR, RUS, SPA (Department of Languages and Literatures; FLA 150 or any literature or “civilization” course at the 300 level or above)
5. HUM (Interdisciplinary Humanities Program)
6. HPS, PHI (Department of Philosophy)
7. REL (Department of Religious Studies)
8. WSH (Women’s Studies Program)

Whether the student is required to take six or nine semester hours to fill the CLAS graduation requirements in the humanities depends upon the number of courses used to fill the humanities component of the university General Studies requirement. If the student elects to take nine semester hours to fill the General Studies component, he or she is required to take a minimum of six semester hours of upper-division course work from the above prefixes to fill the CLAS graduation requirements in the humanities. Similarly, if the student elects to take only six semester hours to fill the General Studies component, he or she is required to take a minimum of nine semester hours, of which a minimum of six semester hours must be in the upper division of course work from the above prefixes to fill the CLAS graduation requirements in the humanities.

B. Natural sciences and mathematics (six semester hours).

Course prefixes for the CLAS graduation requirements in the natural sciences and mathematics:

1. ASM (Department of Anthropology)
2. BIO (Department of Biology)
3. BCH, CHM (Department of Chemistry and Biochemistry)
4. CSE (Department of Computer Science and Engineering)
5. GPH (Department of Geography)
6. GLG (Department of Geology)
7. MAT (Department of Mathematics)

Note: Only mathematics courses for which MAT 117 or a higher-level mathematics course is a prerequisite may be used to satisfy the CLAS graduation requirements in Natural Sciences and Mathematics. Mathematics courses for which MAT 117 is a prerequisite may be used to satisfy CLAS graduation requirements in the natural sciences and mathematics, even if they were also used to demonstrate mathematics proficiency, another component of the CLAS graduation requirements discussed in I.I.D.

8. MIC (Department of Microbiology)
 9. AST, PHS, PHY (Department of Physics and Astronomy)
 10. PLB, MBB (Department of Plant Biology)
 11. PSY (Department of Psychology)
- C. Social and behavioral sciences (six to nine semester hours). Each student is required to complete two to three courses of at least three semester hours each. Course prefixes are identified in the following section. At least two courses must be at the 300 or 400 level.

Course prefixes for the CLAS graduation requirements in the social and behavioral sciences:

1. AFS (African American Studies Program)
2. ASB (Department of Anthropology)
3. CSS (Department of Chicana and Chicano Studies)
4. ECN (Department of Economics)
5. GCU (Department of Geography)
6. HIS (Department of History)
7. PGS (Department of Psychology)
8. POS (Department of Political Science)
9. SOC (Department of Sociology)
10. WST (Women’s Studies Program)

Note: Before the 1999–2000 edition of the *General Catalog*, all Women’s Studies courses were listed as WST. Consult an advisor to verify if an earlier WST course should be considered WSH or WST.

Whether the student is required to take six or nine semester hours to fill the CLAS graduation requirements in the social and behavioral sciences depends upon the number of courses used to fill the social and behavioral sciences component of the university General Studies requirement. If the student elects to take nine semester hours to fill the General Studies component, he or she is required to take a

minimum of six semester hours of upper-division course work from the listed prefixes to fill the CLAS graduation requirements in the social and behavioral sciences. Similarly, if the student elects to take only six semester hours to fill the General Studies component, he or she is required to take a minimum of nine semester hours, of which a minimum of six semester hours must be in the upper division of course work from the listed prefixes to fill the CLAS graduation requirements in the social and behavioral sciences.

- D. Each student is required to demonstrate proficiency by completing courses in a second language. Each student must demonstrate proficiency by completing the courses specified below with a grade of “C” or higher in each course. Second language course requirements consist of
1. completion of second language course work at the intermediate level (202 or equivalent, though some languages require both semesters at the intermediate level to be taken to demonstrate proficiency; see the Department of Languages and Literatures listings for greater specification);
 2. a foreign language course at the 300 level or higher taught in the foreign language and having 202 or its equivalent as a prerequisite;
 3. completion of secondary education at a school in which the language of instruction is not English; or
 4. completion of SHS 202 American Sign Language IV or its equivalent.

III. General Electives. Most CLAS majors can meet all of the above requirements with fewer than 120 semester hours required for graduation. The remaining hours are general electives that may be selected from any of the departments of CLAS and from the offerings of the other colleges.

Program of Study/Declaration of Graduation. The program of study/declaration of graduation, which is required by university regulations during the semester in which an undergraduate earns the 87th hour, must be filed and approved at least two weeks before the preregistration period for the subsequent semester. Students are expected to follow the approved program of study or to receive early college approval for proposed changes to the program of study. Students should contact the Office for Academic Programs, SS 111, regarding college graduation rules and deadlines. Deadlines for filing a program of study/declaration of graduation after enrolling in the 87th hour are March 1 and October 1 of each year. Students with 87 hours must have a college-approved program of study/declaration of graduation before registering for the next semester.

Credit Requirement. All candidates for graduation in the B.A. and B.S. degree curricula are required to complete at least 120 semester hours, of which at least 45 hours must consist of upper-division courses. A minimum ASU cumulative GPA of 2.00 is required for graduation.

Course Load. The normal course load is 15–16 semester hours. First-semester freshmen and entering transfer stu-

dents are not permitted to register for more than 18 semester hours in the initial semester. Other students who wish to register for more than 18 hours must have a GPA of at least 3.00 and must file a petition in the Office for Academic Programs, SS 111, before registration. Any petition for an overload in excess of 21 hours must be presented to the Standards Committee of the college. No student should assume that his or her petition will be granted for overload.

SPECIAL CREDIT OPTIONS

Pass/Fail Grade Option. The pass/fail grade option is intended to broaden the education of Liberal Arts and Sciences undergraduates by encouraging them to take advanced courses outside their specialization. A mark of “P” contributes to the student’s earned hours but does not affect the GPA. A failing grade is computed into the GPA.

Only CLAS students with at least 60 semester hours may take courses under the pass/fail option. The option may be used under the following conditions:

1. enrollment for pass/fail needs the approval of the instructor and the college;
2. enrollment under this option must be indicated during registration and may not be changed after the late registration period; and
3. a maximum of 12 hours taken for pass/fail may be counted toward graduation.

Students may not enroll under the pass/fail option in the following courses:

1. those taken to satisfy the second language or First-Year Composition requirements;
2. those in the student’s major, minor, or certificate program;
3. those counted toward or required to supplement the major;
4. those counted as 499 Individualized Instruction;
5. those taken for honors credits; or
6. those counted toward satisfying the CLAS graduation requirements or the General Studies requirement.

Audit Grade Option. A student may choose to audit a course in which he or she attends regularly scheduled class sessions but earns no credit. The student should obtain the instructor’s approval before registering for the course. For more information, see “Grading System,” page 76.

Note: This grade option may not be changed after the drop/add period.

Independent Learning. Study by independent learning is not a normal part of a degree program; special circumstances must exist for a resident student to take independent learning courses. Any enrollment in such courses must have the prior approval of the college.

ACADEMIC STANDARDS

The standards for GPA and the terms of probation, disqualification, reinstatement, and appeal are identical to those of the university as set forth under “Retention and Academic Standards,” page 79, except that the disqualified student in CLAS is suspended for at least two regular

College of Liberal Arts and Sciences Graduate Degrees and Majors

Major	Concentration	Degree	Administered By
Anthropology	Archaeology, bioarchaeology, linguistics, medical anthropology, museum studies, physical anthropology, social-cultural anthropology	M.A. ¹	Department of Anthropology
Anthropology	Archaeology, physical anthropology, social-cultural anthropology	Ph.D.	Department of Anthropology
Biology ²	Ecology	M.S., Ph.D.	Department of Biology
Chemistry	Analytical chemistry, biochemistry, geochemistry, inorganic chemistry, organic chemistry, physical chemistry, solid-state chemistry	M.S., Ph.D.	Department of Chemistry and Biochemistry
Communication Disorders	—	M.S.	Department of Speech and Hearing Science
Creative Writing	—	M.F.A. ^{3,4}	Creative Writing Committee
English	Comparative literature, English linguistics, literature and language, rhetoric and composition	M.A.	Department of English
English	Literature, rhetoric/composition and linguistics	Ph.D.	Department of English
Exercise Science	Biomechanics, motor behavior/sport psychology, physiology of exercise	Ph.D. ³	Committee on Exercise Science
Exercise Science/ Physical Education	—	M.S.	Department of Exercise Science and Physical Education
Family Resources and Human Development	Family studies, human nutrition	M.S.	Department of Family Resources and Human Development
Family Science ²	Marriage and family therapy	Ph.D.	Department of Family Resources and Human Development
French	—	M.A.	Department of Languages and Literatures
Geography	—	M.A., Ph.D.	Department of Geography
Geology	—	M.S., Ph.D.	Department of Geology
German	Comparative literature, language and culture, literature	M.A.	Department of Languages and Literatures
History	Asian history, British history, European history, Latin American history, public history, U.S. history, U.S. Western history	M.A.	Department of History
History	Asian history, British history, European history, Latin American history, U.S. history	Ph.D.	Department of History
Humanities	—	M.A. ³	Graduate Committee on Humanities
Mathematics	—	M.A., Ph.D.	Department of Mathematics
Microbiology	—	M.S., Ph.D.	Department of Microbiology
Molecular and Cellular Biology	—	M.S., Ph.D.	Interdisciplinary Committee on Molecular and Cellular Biology

¹ Graduate students in the School of Justice Studies and the Department of Anthropology are able to receive a concurrent M.S. degree in Justice Studies and M.A. degree in Anthropology.

² This major has formalized concentration(s); other areas of study are available.

³ This program is administered by the Graduate College. See the *Graduate Catalog*.

⁴ Fiction, nonfiction, poetry, and screenwriting are options for students in this program offered by the faculty in the Department of English. Playwriting is also an option in this program offered by the faculty in the Department of Theatre.

College of Liberal Arts and Sciences Graduate Degrees and Majors (continued)

Major	Concentration	Degree	Administered By
Natural Science	Biology	M.N.S.	Department of Biology
	Chemistry	M.N.S.	Department of Chemistry and Biochemistry
	Geology	M.N.S.	Department of Geology
	Mathematics	M.N.S.	Department of Mathematics
	Microbiology	M.N.S.	Department of Microbiology
Philosophy	Physics	M.N.S.	Department of Physics and Astronomy
	Plant biology	M.N.S.	Department of Plant Biology
Philosophy	—	M.A., Ph.D.	Department of Philosophy
Physical Education	—	M.P.E.	Department of Exercise Science and Physical Education
Physics	—	M.S., Ph.D.	Department of Physics and Astronomy
Plant Biology ²	Ecology, photosynthesis	M.S., Ph.D.	Department of Plant Biology
Political Science	American politics, comparative politics, international relations, political theory	M.A., Ph.D.	Department of Political Science
Psychology	Behavioral neuroscience, clinical psychology, cognitive/behavioral systems, developmental psychology, environmental psychology, quantitative research methods, social psychology	Ph.D.	Department of Psychology
Religious Studies	—	M.A.	Department of Religious Studies
Science and Engineering of Materials	High-resolution nanostructure analysis, solid-state device materials design	Ph.D. ³	Committee on the Science and Engineering of Materials
Sociology	—	M.A., Ph.D.	Department of Sociology
Spanish	Comparative literature, language and culture, linguistics, literature	M.A.	Department of Languages and Literatures
Spanish	Cultural studies, literature	Ph.D.	Department of Languages and Literatures
Speech and Hearing Science	Developmental neurolinguistic disorders, neuroauditory processes, neurogerontologic communication disorder	Ph.D. ³	Committee on Speech and Hearing Science
Statistics	—	M.S. ³	Committee on Statistics
Teaching English as a Second Language	—	M.TESL	Department of English

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semesters at the university. When students are placed on probation, one of three things can happen:

1. the student may raise his or her cumulative GPA to a 2.00 or better by taking new classes and be removed from probation after the fall or spring semester;
2. the student may receive the required semester GPA, but not raise the cumulative GPA to the 2.00 level in which case, the student may continue on probation, earning the required semester GPA, for as many semesters as it takes to raise the cumulative GPA above 2.00; or
3. the student may fail to achieve the required semester GPA and be disqualified.

Students with cumulative GPAs of less than 2.00 who leave the university for a semester or more are not automatically readmitted. Such students, as well as all disqualified students, should contact the Office for Academic Programs, SS 111, regarding procedures and guidance for reinstatement and returning to good standing. By following recommendations and meeting established standards for summer school work or course work at other institutions, the possibility of successful reinstatement is enhanced. Academic discipline is one of the functions of the Office for Academic Programs, SS 111. All students having academic difficulties of any kind should contact this office. Also available in this office is information on policies and procedures of the college on academic honesty, student grievances with

respect to grades, and various petitions regarding college standards and graduation requirements.

Academic honesty is expected of all students in all examinations, papers, academic transactions, and records. The possible sanctions include, but are not limited to, appropriate grade penalties, loss of registration privileges, disqualification, and dismissal.

STUDENT RESPONSIBILITIES

Any student enrolling in courses offered by CLAS is expected to follow the rules and deadlines specified in this catalog and the current *Schedule of Classes*. Students are urged to meet with their departmental academic advisors before registration. Students with additional questions or problems are also urged to meet with advisors in the Office for Academic Programs, SS 111, regarding the academic rules of the college and the university.

SPECIAL PROGRAMS

Honors College. CLAS works closely with the Craig and Barbara Barrett Honors College, which affords qualified undergraduates opportunities for enhanced educational experiences. For a complete description of requirements and opportunities, see “Craig and Barbara Barrett Honors College,” page 323.

Integrated Studies. An Integrated Studies major leading to the B.A. or B.S. degree provides students of outstanding ability in the humanities, natural sciences and mathematics, and social and behavioral sciences opportunities to pursue courses of studies that cut across departmental boundaries and focus on specific topics or problem areas. Completion of 32 semester hours at ASU with a GPA of at least 3.25 and three letters of recommendation from ASU faculty members

are required for admission. For more information about degree requirements, contact the Office for Academic Programs, SS 111.

Washington Semester Program. Students have a variety of opportunities for practicum and internship experiences that enable them to meld classroom learning with practical application. Among the several individual departmental programs that provide internships for majors, the Department of Political Science is the ASU sponsor of the Washington Semester Program. The program provides students a one-semester opportunity to study in Washington, D.C., through any one of several programs sponsored by the American University. The program is available to outstanding juniors or seniors and requires careful planning with an academic advisor early in the student’s career. For more information, call the Department of Political Science, 480/965-6551.

Military Officer Training. The Departments of Aerospace Studies and Military Science offer programs leading to commissions in the armed forces, but they do not offer majors or minors. For more information, see the appropriate department descriptions in this catalog.

Certificate Programs and Areas of Emphasis

Seventeen certificates are available from units in CLAS, and one collegewide Enriched College Degree certificate is available to any major in the college as shown in the “CLAS Certificates” table, on this page. Areas of emphasis are also available in some of the same subjects (e.g., Latin American Studies).

Enriched College Degree. CLAS offers an Enriched College Degree certificate, available to any major within the college.

CLAS Certificates

Certificate Program	Administered By	Page
Enriched College Degree	CLAS	339
African American Studies	African American Studies Program	345
Asian Studies ¹	Center for Asian Studies	340
East Asian Studies	Center for Asian Studies	340
Health Physics	Pre-Health Professions Office	340
History and Philosophy of Science	Department of Philosophy	416
Jewish Studies	Jewish Studies Committee	340
Latin American Studies ¹	Latin American Studies Center	340
Medieval and Renaissance Studies	Arizona Center for Medieval and Renaissance Studies (ACMRS)	340
Medieval Studies ²	ACMRS	—
Museum Studies ²	Department of Anthropology	—
Renaissance Studies ²	ACMRS	—
Russian and East European Studies ¹	Russian and East European Consortium	341
Scandinavian Studies	Department of Languages and Literatures	341
Scholarly Publishing ²	Department of History	—
Southeast Asian Studies	Program for Southeast Asian Studies	341
Translation	Department of Languages and Literatures	392
Women’s Studies ²	Women’s Studies Program	341
Writing	Department of English	364

¹ Emphases are also available in these programs.

² For more information, see the *Graduate Catalog*.

The Enriched College Degree certificate consists of a minimum of 15 semester hours of a minimum of “C” grade credit. The certificate consists of

1. a theme track composed of a three-course sequence outside the student’s major, characterized by an identifiable theme of intellectual relevance for students;
2. a bridge course selected to address the relationships among areas of inquiry and means of acquiring knowledge; and
3. an upper-division course in spoken English to provide a meaningful opportunity for substantive oral presentations.

For more information, contact the CLAS Office for Academic Programs, SS 111, or call 480/965-6506.

Asian Studies. An Asian Studies certificate is offered through the Center for Asian Studies.

Students must complete two years (20 semester hours) of an Asian language plus 30 additional hours of Asian-area studies courses selected from core Asian studies courses or courses with a significant focus on Asia chosen in consultation with the Center for Asian Studies advisor. Students whose native language is an Asian language or who have otherwise mastered an Asian language may elect to take four additional Asian studies courses in place of the elementary and intermediate language classes. Language requirements may be selected from Chinese, Indonesian, Japanese, Korean, Thai, and Vietnamese.

An East Asian Studies certificate is also available. Students must complete two years (20 semester hours) of Chinese or Japanese plus 30 additional semester hours of East Asian area studies courses; these courses must be selected from the core East Asian curriculum or must be courses with a significant focus on East Asia chosen in consultation with the Center for Asian Studies director.

Note: Students whose native language is Chinese or Japanese or who have otherwise mastered these languages may elect to take four additional East Asian studies courses in place of the elementary and intermediate language courses.

The center houses a comprehensive library and is involved in student and faculty exchange programs with several Asian universities as well as serving as a liaison with various Asian organizations.

For more information, contact the Center for Asian Studies, WHALL 105, 480/965-7184.

Health Physics. The curriculum of health physics involves work in CLAS and the College of Engineering and Applied Sciences. The purpose of the concentration is to serve undergraduate students who wish to prepare themselves for careers in health physics. To qualify for professional status, a health physicist needs a B.S. degree in one of the physical or life sciences and a group of specialized courses in physics, mathematics, chemistry, engineering, and biology.

A Certificate of Concentration in Health Physics is awarded for the successful completion of a B.S. degree in a physical or life science that follows a prescribed program. Inquiries about the program should be addressed to the Pre-Health Professions Office, LSC 206C, 480/965-2365, where academic advising is available.

Jewish Studies. The Jewish studies program is designed with the following goals in mind:

1. to examine the history and culture of the Jews;
2. to provide a model for interdisciplinary teaching and research;
3. to generate and facilitate research on Judaica;
4. to provide the community with programs, courses, and research furthering the understanding of Judaica; and
5. to stand as an example of the university’s commitment to a program of meaningful ethnic studies on a firm academic base.

The Certificate of Concentration in Jewish Studies may be combined with a major in any college. For information about the program, refer to the Department of History or the Department of Religious Studies.

Latin American Studies

The Latin American Studies certificate program is designed to give students an understanding of culture, economies, political structures, and the history of Latin American nations. The Departments of Anthropology, Economics, Geography, History, Languages and Literatures (Spanish and Portuguese), Political Science, and the College of Business offer courses that combine to make up the interdisciplinary certificate. Students must complete 30 hours of upper-division courses from the above departments/colleges with a concentration in Latin America—15 hours in the major subject and 15 hours in other disciplines. The certificate requires Spanish or Portuguese proficiency through the 313 level of conversation and composition. Only language courses above 313 in literature and civilization will count toward a major or interdisciplinary areas of preparation. Spanish and Portuguese courses above 313 in grammar and phonology will not count toward the major requirements.

The Latin American Studies Center offers the area of emphasis for students who do not wish to attain a high level of language proficiency.

For more information, visit the Latin American Studies Center at SS 213, or call 480/965-5127.

Medieval and Renaissance Studies. An undergraduate Certificate in Medieval and Renaissance Studies is offered by the Arizona Center for Medieval and Renaissance Studies (ACMRS). In addition to the course work and examinations required in a student’s major field of interest, the following minimum requirements must be fulfilled to earn the certificate:

1. six to eight semester hours of classical Latin and six to eight semester hours of Latin (classical and/or medieval) or of a vernacular language of the period (e.g., Old English, Old Norse, Old French, Renaissance Italian);
2. six to eight semester hours of course work in medieval and renaissance studies outside the major discipline;
3. three semester hours of thesis on a topic concerning the Middle Ages or Renaissance. The thesis may be used to fulfill the Honors College thesis requirement for students enrolled in the Honors College; and

4. a minimum of a “C” average in all course work leading to the certificate.

Students interested in the certificate program need to complete an application form before being accepted into the program. Applications are available by calling ACMRS at 480/965-5900.

See the *Graduate Catalog* for information about the Certificate in Medieval Studies and the Certificate in Renaissance Studies, and “Arizona Center for Medieval and Renaissance Studies (ACMRS),” page 35, for information about the center.

Museum Studies. See the *Graduate Catalog* or contact the Department of Anthropology for more information.

Russian and East European Studies. Undergraduate students may complete an interdisciplinary certificate program leading to a bachelor’s degree with a major in the chosen field with an emphasis in Russian and East European studies. The requirements for the Russian and East European Studies certificate comprise (1) three years (22 hours) of Russian or another Eurasian or East European language and (2) 30 upper-division semester hours in Russian/East European area-related course work.

At least three disciplines must be represented in the area-related course work, and at least 12 hours must be outside the Department of Languages and Literatures (i.e., non-RUS and non-FLA courses). Fulfillment of these requirements is certified by the Russian and East European Studies Consortium and is recognized on the transcript by a bachelor’s degree with “Major in [Discipline], Emphasis in Russian and East European Studies.” The purpose of this undergraduate certificate program is to encourage students majoring in a chosen discipline to develop special competency in Russian or East European language and area studies. A major in any department may elect this emphasis.

For further information, contact the program coordinator of the Russian and East European Studies Consortium at 480/965-4188.

Scandinavian Studies. Students admitted to undergraduate degree programs in any field are eligible for the Scandinavian Studies certificate program. In addition to the course work and examinations required in the student’s major, the student is responsible for fulfilling the following minimum requirements (21 semester hours) before the certificate is issued:

1. six semester hours of Norwegian or Swedish at the 200 level or above;
2. three semester hours in SCA 250 Introduction to Scandinavian Culture;
3. nine semester hours of upper-division course work in Scandinavian Studies outside the student’s major discipline;
4. a minimum of a “C” average in all course work leading to the certificate; and
5. three semester hours in an independent study thesis on a topic concerning Scandinavian Studies. The thesis may be used to fulfill the Honors College thesis requirement for students enrolled in the Honors College.

Students who test out of the basic language courses would under advisement take other approved courses to fulfill the minimum requirement of 21 semester hours.

Scholarly Publishing. See the *Graduate Catalog* for information on this certificate program.

Southeast Asian Studies. A Certificate in Southeast Asian Studies is available to any undergraduate student. The certificate program offers two options: (1) an area studies specialization emphasizing courses in the social sciences and humanities and requiring one year of Indonesian, Thai, or Vietnamese and (2) a language specialization requiring a two-year sequence in a Southeast Asian language and a proportional number of area studies courses.

Students wishing to study a Southeast Asian language other than those offered on campus may transfer credits earned at the Southeast Asian Studies Summer Institute, a consortium for intensive language and area studies, or at other accredited programs. Qualified students may request placement testing on other national languages of the region, administered in accordance with the national American Council of Teachers in Foreign Languages (ACTFL) guidelines.

The ASU curriculum includes

1. language instruction in Indonesian, Thai, or Vietnamese;
2. ASB/GCU/HIS/POS/REL 240 Introduction to Southeast Asia;
3. HIS 308 Modern Southeast Asia;
4. electives in the social sciences and humanities on the history, geography, culture, politics, and religion of the region; and
5. a culminating capstone seminar in which the students share multidisciplinary approaches to the region and integrate knowledge of Southeast Asia with their respective disciplinary orientations.

Courses counting toward the Certificate in Southeast Asian Studies fulfill requirements for undergraduate majors and General Studies in the social and behavioral sciences, humanities, literacy, and global and historical awareness areas. A two-year sequence in Southeast Asian language study meets the foreign language requirement for undergraduates in CLAS.

The Program for Southeast Asian Studies is a federally funded National Resource Center for Southeast Asia. For more information, contact the Program for Southeast Asian Studies, LL 9 (Basement), 480/965-4232.

Translation. See “Certificate Program in Translation,” page 392, for information about the Certificate in Translation.

Women’s Studies. Women’s Studies provides students with an intensive interdisciplinary liberal arts education that enables them to write well, think critically, and analyze problems effectively. Students take a variety of courses, including a capstone seminar requiring original research and writing and an internship that helps them prepare for life after college. Original undergraduate research is encouraged, and some courses involve students in studying community problems and formulating policy solutions.

A Certificate of Concentration in Women's Studies is awarded for the successful completion of WST 100 (or 300) and 498 and an additional 15 semester hours from the list of approved women's studies courses, only six hours of which may also be applied toward the student's major.

Inquiries about the program should be addressed to the Women's Studies Program, EC A209, 480/965-2358, where the current list of approved courses is available.

GENERAL INFORMATION

Research Centers. To expand educational horizons and to enrich the curriculum, CLAS maintains the following research centers:

- Arizona Center for Medieval and Renaissance Studies
- Cancer Research Institute
- Center for Asian Studies
- Center for Meteorite Studies
- Center for Solid-State Science

- Center for the Study of Early Events in Photosynthesis
- Exercise and Sport Research Institute
- Hispanic Research Center
- Institute of Human Origins
- Latin American Studies Center

See "Research Centers, Institutes, and Laboratories," page 31, for more information.

The faculty also offers the following LIA course to familiarize students with available resources and services for research purposes.

LIBERAL ARTS AND SCIENCES (LIA)

LIA 191 First-Year Seminar. (1-3) N

For information on LIA courses, see the current *Schedule of Classes* or contact the Office for Academic Programs, SS 111, 480/965-6506.



Bateman Physical Sciences Center

Frank Chuang photo