COLLEGES OF
Arts and Sciences

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1 The MS and PhD in botanical sciences are offered in botany.
2 The MA and PhD in East Asian languages and literatures are offered in Chinese, Japanese, and Korean.
3 The MA in languages and literatures of Europe and the Americas is offered in Classics, French, German, Russian, and Spanish.
4 Students can receive a BA in liberal studies in English as a second language, environmental studies, European cultural studies, Indo-Pacific languages, linguistics, peace studies, and women's studies. In addition, students can design their own majors utilizing this program.
5 The Department of Second Language Studies offers the MA in English as a second language and the PhD in second language acquisition.
6 The BA in liberal studies for Indo-Pacific languages has several concentrations: Filipino, Hindi, Ilokano, Indonesian, Samoan, Sanskrit, Thai, and Vietnamese.
7 The Certificate in Indo-Pacific Languages is offered in Burmese, Filipino, Hawaiian, Hindi, Ilokano, Indonesian, Samoan, Sanskrit, Tahitian, Thai, and Vietnamese.

BA—bachelor of arts
BFA—bachelor of fine arts
BMus—bachelor of music
BS—bachelor of science
G Cert—graduate certificate
MA—master of arts
MFA—master of fine arts
MLISc—master of library and information science
MMus—master of music
MPA—master of public administration
MS—master of science
MURP—master of urban and regional planning
PhD—doctor of philosophy

Administration

College of Arts and Humanities

Burns 4031
1601 East West Rd
Honolulu, HI 96848-1601
Tel: (808) 956-6460
Fax: (808) 956-9085

Dean: Judith R. Hughes
Associate Dean: Roger A. Long

Departments: American Studies, Art, History, Music, Philosophy, Religion, Speech, and Theatre and Dance.

College of Languages, Linguistics and Literature

Bilger 101
2545 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-8516
(808) 956-8671
Fax: (808) 956-9879

Interim Dean: Roderick A. Jacobs
Acting Associate Dean: Joseph H. O'Mealy

Departments and programs: East Asian Languages and Literatures, English, Hawaiian and Indo-Pacific Languages and Literatures, Interpretation and Translation Studies, Languages and Literatures of Europe and the Americas, Linguistics, Russian Studies, Second Language Acquisition, and Second Language Studies.

College of Natural Sciences

Bilger 102
2545 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-6451
Fax: (808) 956-9111

Interim Dean: Charles F. Hayes

Departments and programs: Biology, Botany, Chemistry, Information and Computer Sciences, Library and Information Science, Mathematics, Microbiology, Physics and Astronomy, and Zoology.

College of Social Sciences

Burns 4006
1601 East West Rd
Honolulu, HI 96848-1601
Tel: (808) 956-6570
Fax: (808) 956-2340

Dean: Richard Dubanoski
Associate Dean: Nancy D. Lewis

Departments and programs: Anthropology, Communication, Economics, Ethnic Studies, Geography, Journalism, Peace Studies, Political Science, Population Studies, Psychology, Public Administration, Social Science Research Institute, Sociology, Urban and Regional Planning, and Women's Studies.

Academic Affairs and Student Academic Services

Krauss 22
2500 Dole St.
Honolulu, HI 96822
2500 Campus Road
Tel: (808) 956-8844
Fax: (808) 956-2191

Associate Dean: Ronald E. Cambra

Academic advising for all arts and sciences students and all matters relating to the granting of baccalaureate degrees in arts and sciences; curricular affairs; administration of Freshman Seminar, Honors and Selected Studies, Liberal Studies, and Rainbow Advantage Program; and registration ombudsman.

General Information

The Colleges of Arts and Sciences are comprised of four colleges that offer an integrated curriculum leading to baccalaureate and graduate degrees, certificates, and minors in their respective colleges. Each college includes an administrative unit and a number of academic departments and programs.

The four colleges are served by one administrative unit, the Academic Affairs and Student Academic Services office, which is a part of the Colleges of Arts and Sciences.

An excellent education is the primary mission of the University of Hawai'i at Mānoa, and the Colleges of Arts and Sciences is at the heart of this mission, providing students with a comprehensive learning experience in a vibrant academic climate.

UH Mānoa undergraduates take their first University courses in the Colleges of Arts and Sciences as they undertake the General Education Core curriculum that is part of all the bachelor degrees offered on the campus. This liberal arts curriculum stresses the integration of knowledge to enhance

students' understanding of life, the human condition, and the world in which we live. The core curriculum also entails critical thinking, which enables students to evaluate arguments, ideas, and theories and to develop creative and meaningful applications of what they learn. The core gives students the tools of inquiry, enabling them first to identify important questions and then to seek, analyze, and interpret possible answers to issues of their lives, world, and universe. The curriculum also provides opportunities to develop students' artistic and creative imaginations and their oral and written communication skills so that they can effectively present their ideas, thoughts, and feelings. Since values guide human actions, the core curriculum allows students to examine their own values and learn about those of others in order to help the students understand themselves and others around the world.

Students who earn their degrees in one of the Colleges of Arts and Sciences will find that the programs of the colleges are designed with the conviction that, beyond the core curriculum, liberally educated persons should have an intensive knowledge of at least one field of the arts, the humanities, the languages, the natural sciences, or the social sciences. An ideal education, based in the liberal arts, prepares students for productive lives and careers, enlightened citizenship, and lifelong learning. The colleges strive to enhance excellent learning opportunities by promoting active student participation.

Accreditations and Affiliations

All academic programs are reviewed and evaluated regularly by campus and external faculty committees. Some academic programs, because of the nature of the discipline, are accredited also by national organizations. Check with individual academic departments and programs for their accreditation status or affiliation with national or international organizations.

Degrees and Certificates

For a listing of the degrees and certificates offered by the Colleges of Arts and Sciences, see the table at the beginning of this section of the Catalog.

Bachelor's Degrees: Bachelor of Arts (BA), Bachelor of Fine Arts (BFA), Bachelor of Music (BMus), Bachelor of Science (BS)

Master's Degrees: Master of Arts (MA), Master of Fine Arts (MFA), Master of Library and Information Science (MLISc), Master of Music (MMus), Master of Public Administration (MPA), Master of Science (MS), Master of Urban and Regional Planning (MURP)

Doctoral Degrees: Doctor of Philosophy (PhD) degrees in various disciplines

Certificate Programs

In addition to the major concentrations that are part of every bachelor's degree, students may choose to pursue a certificate in an area of personal interest. Certificates signify that a student has completed a defined body of work in a particular department or program. Certificates can be conferred as soon as the student completes the program's requirements. The right to confer certificates has been granted to certain programs and departments by the Board of Regents; some certificates are only for graduate students. Most certificates entail a minimum of 15 credit hours of non-introductory course work (including all upper division courses and those on the 200 level that have college-level course prerequisites), completed with a grade of C or better. Information on specific certificates can be obtained from the appropriate department or program office.

The Colleges of Arts and Sciences offer certificate programs in the following disciplines: Classics, clinical psychology, environmental studies, ethnic studies, French, German, Hawaiian, historic preservation, Indo-Pacific languages (Burmese, Filipino, Hindi, Ilokano, Indonesian, Samoan, Sanskrit, Tahitian, Thai, and Vietnamese), international cultural studies, interpretation, music, Pacific Islands studies, peace studies, planning studies, population studies, post-baccalaureate second major[†], public administration, religion, Russian, Russian area studies, sophomore honors, Spanish, telecommunication and information resource management, translation, urban and regional planning, and women's studies.

Advising

Student Academic Services Office
Keller 305
Honolulu, HI 96822
Tel: (808) 956-8755
Fax: (808) 956-9796

Academic advisers at the colleges' Student Academic Services Office assist students with clarifying academic and career goals, learning about educational options and campus resources, planning a program of study, understanding academic policies and procedures and degree requirements, and assessing their academic progress toward their degrees. Students who are interested in a particular major or who have already declared a major can also meet with an adviser in the appropriate academic department.

From matriculation to graduation, students can take advantage of a range of advising services offered by the Arts and Sciences Student Academic Services office.

Freshmen

See Freshman Advising Center under First Year at Mānoa in the "Undergraduate Education" section of this *Catalog*.

Sophomores

Sophomores who need assistance choosing a major should see an academic adviser or attend a special session designed to

[†] For additional information on the post-baccalaureate certificate for a second major, see *Undergraduate Programs*, within this section of the *Catalog*.

help students sort through their options. If they are interested in transferring to another program, they should see an adviser in that office.

Juniors

Juniors can attend a Junior Matriculation Planning (JUMP) session to assess their academic progress, project a graduation date, and plan their remaining semesters at UH Mānoa.

Seniors

Seniors must attend a Graduation Audit (GRAD) session to review their record, plan their remaining semester(s), and do the necessary paperwork for graduation.

Students can also meet individually with advisers for clarification of requirements and for resolution of complex academic issues and individual concerns.

Undergraduate Programs

The Colleges of Arts and Sciences offers the bachelor of arts (BA), the bachelor of fine arts (BFA), the bachelor of music (BMus), and the bachelor of science (BS) degrees in more than 40 different majors. In addition, the Colleges offer over 20 minors. Each degree includes a set of General Education Core courses, a specific field of concentration (the major), and courses in subjects that contribute to that major or are of special interest to the student (electives or minor).

Although the University's General Education requirements must be completed by all candidates for baccalaureate degrees, each arts and sciences degree program requires candidates to satisfy a unique combination of core courses and prerequisites. A list of program requirements for each of the arts and sciences bachelor's degrees is available at the Colleges of Arts and Sciences Student Academic Services office, Keller 305.

The field of concentration or major should be declared by the end of the sophomore year by submitting a completed College and Major Transfer Request form to the Student Academic Services Office. Music and dance majors and majors offered under the bachelor of science should be declared within the first year of enrollment.

Information on specific majors and minors is available at the respective academic departments.

Admission Requirements and Application Procedures

Information regarding admission requirements, application procedures, and deadlines for admission and enrollment are provided in the "Undergraduate Education" section of this *Catalog*.

Admission requirements for the Colleges of Arts and Sciences candidates who have no previous college-level work are the same as those for the University. However, candidates for admission are strongly advised to complete a minimum of two years of college-preparatory mathematics and three years of a foreign language.

Transfer candidates who are offering 24 semester hours of work from a regionally accredited U.S. college or university in lieu of the SAT should have completed college-level academic courses that verify minimum-level proficiency in both the verbal and mathematical equivalences of the SAT. In addition, applicants who have junior or higher standing must have selected an arts and sciences major for which they are eligible and for which they have demonstrated academic promise.

Second or Multiple Majors and Minors

Arts and Sciences students are encouraged to consider applying for a second major or a minor or a combination of both. Pursuing additional academic fields of study in the form of a second major, or with the addition of a minor, can benefit students in several ways, including the opportunity to discover relationships across disciplines, develop diverse perspectives, strengthen one's appreciation for the acquisition of knowledge in more than one academic field and enhance one's ability to problem-solve and communicate in a variety of settings. Applicants for multiple majors/minors need to:

- be enrolled as classified arts and sciences students,
- be in good academic standing,
- be seeking majors under one degree program (i.e., BA/psychology and speech, or BS/physics and mathematics),
- be able to complete degree requirements within the maximum total credits as specified by the University's excess credit policy (see "Undergraduate Education"),
- submit a statement with the application that describes the reason for adding the second major and the educational benefits expected from the addition,
- keep in mind that no diversification course may be used to satisfy more than one requirement (general education core, college, major and minor requirements).

The Colleges offer minors in the following disciplines: American studies, art, biology, botany, chemistry, computer science, dance, economics, English, geography, Hawaiian (immersion education), history, mathematics, microbiology, music, philosophy, physics, political science, religion, sociology, speech, theatre, and zoology.

Most minors require a minimum of 15 credits of non-introductory and upper division level course work, completed with a grade of C or better.

Academic advisers are available to discuss with students the way that a second major or minor can compliment the first major and to help students formulate an academic plan so that adding a second major or a minor does not delay graduation unnecessarily.

Post-baccalaureate candidates who wish to pursue a second major rather than a complete second baccalaureate degree should pursue their academic major as an unclassified post-baccalaureate candidate. Upon completion of the second major, the candidate may apply at the major department for a second major certificate.

Second Baccalaureate Degree

Priority for admission into any arts and sciences baccalaureate program is given to students seeking their first undergraduate degree. The due date for second undergraduate degree applications is approximately six weeks **before** the Admissions and Records deadline. Fall applications must be received by Admissions and Records no later than April 15th, and Spring applications must be received no later than September 15th. Incomplete or late applications will not be considered. Complete applications contain all the materials required by Admissions and Records in addition to the following:

1) A **typewritten, signed statement** explaining how the second degree will help the applicant attain their personal, academic and professional goals.
2) Following review by Arts and Sciences, applicants will be informed of their remaining general education requirements and referred to the major departments in order to complete an **academic plan** demonstrating concrete knowledge of the second degree program for which they are applying. Applicants will be given a deadline to submit the academic plan in order to continue the admissions process.

Applications for a second baccalaureate degree will be considered only if there is a demonstrable difference in curricula and objectives between the two degrees and majors and if the applicant has a superior grade point average and shows strong promise of success in the proposed second degree. Second degree students must earn a minimum of 30 credits in arts and sciences subjects at UH Mānoa while continuously enrolled in the colleges, and satisfy all degree requirements current at the time of official admission into the program.

The colleges may approve concurrent multiple baccalaureate degrees for exceptional students. Students should speak with an adviser in the Arts and Sciences Student Academic Services office for information.

College/School Requirements

To earn a bachelor's degree offered by the colleges, students must do the following:

1. Complete basic subjects specified by their degree programs;
2. Fulfill the requirements of a major field of concentration and present to the Student Academic Services office the goldenrod form attesting to completion of the major and signed by the major adviser;
3. Earn at least 60 hours of credit in non-introductory courses. These may be upper division courses (courses numbered 300 or above) or 200-level courses that have an explicit college-level course prerequisite;
4. Acquire a minimum total of 124 hours of credit, of which no more than 20 credit hours may be in subjects not offered within the Colleges of Arts and Sciences; no more than 12 may be in practicum courses; no more than 9 may be in directed reading and research (-99) courses; and no more than 8 in KLS activity courses;
5. Earn at least a 2.0 GPA (C average) for all UH Mānoa registered credits;
6. Register for all required courses (core, major, and minor, if applicable, courses) for a letter grade;
7. Earn a grade of C or better in each course applied to the major and/or minor requirements (some majors require higher grades);
8. Arrange for a degree audit at a "GRAD session" at the Student Academic Services office during the semester preceding the award of the degree;
9. Submit, during the semester preceding the award of the degree, an application for graduation available at Student Academic Services office;
10. Pay a graduation fee of $15 to the Cashier's Office.

Students may apply to the appropriate language departments for exemption by examination in Hawaiian or foreign languages. They may also apply for credit by examination in any course offered by the colleges and required in a particular curriculum and for which a written examination is appropriate and feasible. Such credit carries a corresponding reduction in the 124 credit hours required for graduation. Note the deadlines in the "Calendar."

The associate dean of the Colleges of Arts and Sciences Academic Affairs and Student Academic Services may exercise discretion in modifying some of these requirements in exceptional cases after consultation with the graduation committee.

Arts and Sciences Program Requirements*

BA Degree

BA candidates are required to complete the University of Hawai'i at Mānoa General Education Core and graduation requirements.

Foundations Requirement (12 credits)

See the "Mānoa General Education Core and Graduation Requirements" section of this *Catalog* for information. This requirement includes courses in written communication, symbolic reasoning, and global and multicultural perspectives.

Graduation Requirements

Focus Requirements

See the "Mānoa General Education Core and Graduation Requirements" section of this *Catalog* for information.

Hawaiian/Second Language Requirement

See the "Mānoa General Education Core and Graduation Requirements" section of this *Catalog* for information.

Diversification Requirement (minimum 37 credits)

Arts and Sciences BA candidates fulfill the UHM diversification requirement through the following Arts and Sciences

* For students entering UH Mānoa fall 2001.

program requirements.

The diversification requirement embodies virtually the entire rationale for a general education in a university. It develops in students a clear understanding of the inherited values, ideas, and philosophies of cultures as expressed in works of literature, history, philosophy, religion, art, and music and an understanding in the basic fields of both the natural and social sciences.

Courses taken for foundations requirement may not be counted towards diversification requirement.

■ Arts and Humanities

Requirement

Three semester courses, one selected from each of the following three groups:

Group 1: The Arts (AHL1)**
Mainly Theory
Arts and Humanities 100
Art 101, 171, 172, 180
Dance 150, 255
Languages and Literatures of Europe and the Americas 237
Music 106, 107, 108, 253, 265, 266, 370
Theater 101, 201, 318

Mainly Practice
Art 103, 104, 105, 107, 113, 115, 116, 123, 130
Dance 121, 122, 131, 132, 301†, 302†, 303†, 304†, 305†, 306†, 307†, 311†, 401†, 402†, 403†, 404†, 405†, 406†, 407†, 411†
English 313
Music 114†, 121, 122†, 127, 128†, 410B†, 410C†, 416B†, 416C†, 418†, 419†
Speech 151, 231, 251
Theater 221, 222, 240

Group 2: History and Culture (AHL2)**
American Studies 201, 202
Architecture 271, 272
Asian Studies 241 or History 241
Asian Studies 242 or History 242
Hawaiian Studies 107
History 231, 232, 281, 282, 288
Religion 210

Group 3: Values and Meaning (AHL2)**
Philosophy 100, 101, 102, 103, 211, 212, 213
Religion 150, 151, 200, 201, 202, 203, 204, 205, 207

■ Languages, Linguistics, and Literature (AHL3**)

Requirement

Three semester courses, two selected from Group 1 and one selected from Group 2.

Group 1: Introduction to Literature
English 250, 251, 252, 253, 254, 255, 256, 257

Group 2: Language, Culture, and Linguistics
East Asian Languages and Literature 271, 272, 281, 282, 361, 362, 363B, 363C
East Asian Languages and Literature 364 or Women's Studies 346
English 302, 321, 361
Hawaiian 261
Indo-Pacific Languages 273D, 273E, 396
Languages and Literatures of Europe and the Americas 122, 227, 228, 335, 336, 339, 340, 342, 343, 351, 352, 360, 362, 363, 371
Linguistics 102
Second Language Studies 430

■ Natural Sciences

Requirement

Three semester courses including at least one in the biological sciences and one in the physical sciences. One of the three courses must include a laboratory.

Group 1: Biological Sciences (NS1)**
Biology 101/101L or 123/123L
Biology 102/102L or Botany 101/101L
Biology 103/103L or Zoology 101/101L
Biology 124/124L, 171/171L
Biology 350 or Women's Studies 350
Botany 130/130L, 201/201L
Botany 450 or Zoology 450
Cell and Molecular Biology 351
Food Science and Human Nutrition 185
Microbiology 130, 140, 351
Physiology 103/103L, 141/141L, 142/142L
Zoology 200/200L

Group 2: Physical Sciences (NS2)**
Astronomy 110 or 240
Biochemistry 241
Chemistry 151/151L, 161/161L, 162/162L, 171/171L, 181/181L
Environmental Biochemistry 152 or Chemistry 152, and Chemistry 152L
Geography 101/101L
Geology and Geophysics 101/101L, 103/101L, 105, 108
Meteorology 101/101L
Oceanography 201
Physics 100/100L, 122/122L, 151/151L, 152/152L, 170/170L, 272/272L

Group 3: Other Sciences (NS3)**
Information and Computer Sciences 111 (Note: 111L may not be used to fulfill the science lab requirement.)

■ Social Sciences (SS**)

Requirement

Three semester courses, each from a different department.

Agricultural and Resource Economics 220
American Studies 211, 212

† Any combination of these courses that totals 3-credit hours will be considered the equivalent of a one-semester course.

** UH Mānoa General Education course designations.

Anthropology 150, 200
Asian Studies 312
Botany 105
Economics 120, 130, 131, 230, 310, 360
Ethnic Studies 101
Ethnic Studies 365 or Women's Studies 360
Family Resources 230
Geography 102, 151, 336
Journalism 150
Political Science 110, 120, 130, 171, 190, 221, 272
Psychology 100, 170
Psychology 202 or Women's Studies 202
Sociology 100, 214, 218, 231, 251
Sociology 362 or Women's Studies 362
Speech 364
Women's Studies 151

BFA Degree

Completion of the UH Mānoa General Education requirements (see the "Mānoa General Education Core and Graduation Requirements" section of this *Catalog* for information).

All BFA degree candidates should consult the appropriate departmental adviser before registering.

BMus Degree

Completion of the UH Mānoa General Education requirements (see the "Mānoa General Education Core and Graduation Requirements" section of this *Catalog* for information).

For students concentrating in voice, completion of first-level study of two languages may be substituted for completion of second-level study of a single language with prior approval of the department chair.

All BMus degree candidates should consult the appropriate departmental adviser before registering.

BS Degree

Completion of the UH Mānoa General Education Core (see the "Mānoa General Education Core and Graduation Requirements" section of this *Catalog* for information).

All BS candidates are required to complete the following science courses—either as part of the program or major requirements or as electives: CHEM 161/161L and 162/162L or 171/171L or 181A/181L; any Math department Calculus I and II courses; and PHYS 170/170L and 272/272L, or PHYS 151/151L and 152/152L.

It is recommended that all entering students who have had high school courses in mathematics through pre-calculus take the following courses during their freshman year: CHEM 161/161L or CHEM 171/171L, any Math department Calculus I and II courses, and perhaps PHYS 151/151L or PHYS 170/170L.

Introductory mathematics courses have pre-calculus assessment. Students who do not have a high school course equivalent to pre-calculus should take MATH 140 at the University during the summer session prior to their first semester.

All BS degree candidates should consult the appropriate departmental adviser before registering.

Professional Programs

Students who wish to prepare themselves for admission to professional schools should follow the recommendations of the appropriate national professional organization. In addition, they should elect courses fulfilling specific requirements of the schools they hope to enter.

The Professions Advising Center (PAC) in the Arts and Sciences Student Academic Services Office can give specific aid to students preparing for admission to schools of dentistry, law, medicine, optometry, pharmacy, and allied health fields. Information on scholastic requirements of other professions is also available from the following resources:

- *Medical School Admission Requirements, United States and Canada*
- *Pre-law Handbook*
- *Admission Requirements of U.S. and Canadian Dental Schools*
- *Pharmacy School Admission Requirements*

Catalogs of individual schools with more specific admission requirements may be found in the Professions Advising Center in Keller 303A, or at Hamilton Library, or on the World Wide Web.

Graduate Programs

Information regarding graduate programs and admission is in another section of the *Catalog*. Each department also includes in its description information about its specific program(s). Check specific departments for program requirements.

Student Organizations

Societies and clubs associated with many departments within the Colleges of Arts and Sciences give students opportunities to explore a field from an informal perspective, get acquainted with other students with similar interests, and learn of the options available upon graduation. The Colleges of Arts and Sciences highly recommend active student involvement in these associations for the academic and professional enhancements they provide. Check with your departmental adviser for information.

Honors and Awards

Scholarships and Awards

The Colleges of Arts and Sciences and their departments provide scholarships and awards to exceptional students. For a selective list of scholarships, see "Tuition, Fees, and Financial Aid." If you wish specific information on prizes or scholarships offered through the Colleges of Arts and Sciences, contact the appropriate department or check CA$H (Computer-Assisted Scholarship Help), a source of more than a thousand scholarships, accessible on the Web at dbserver.its.hawaii. edu/cash/.

Honor Societies

Honor societies at UHM in the Colleges of Arts and Sciences include Alpha Kappa Delta (sociology), Beta Phi Mu (library science), Delta Phi Alpha (German), Golden Key National Honor Society (undergraduate), Kappa Tau Alpha (journalism), Lambda Delta (freshmen), Mortar Board (seniors), Omicron Delta Epsilon (economics), Phi Alpha Theta (history), Phi Beta Kappa (liberal arts and sciences), Phi Eta Sigma (freshmen), Phi Kappa Phi (general scholarship), Pi Delta Phi (French), Pi Kappa Lambda (music), Pi Sigma Alpha (political science), Psi Chi (psychology), Sigma Delta Pi (Spanish), Sigma Pi Sigma (physics), and Sigma Xi The Scientific Research Society (sciences).

Instructional and Research Facilities

Center for Biographical Research

The Center for Biographical Research (CBR) is dedicated to the interdisciplinary and multicultural study of lifewriting. CBR programs include teaching, publication, and outreach activities.

In conjunction with the Department of English, CBR offers thesis advising for PhD and MA projects. The Department of English also offers a number of graduate and undergraduate courses in lifewriting. A BA program in biography is offered through the Liberal Studies Program, and the Biography Prize is offered annually for the best work on any aspect of lifewriting by a PhD candidate at the University of Hawai'i.

CBR publishes *Biography: An Interdisciplinary Quarterly,* the premier scholarly journal in the field. Appearing continuously since 1978, *Biography* explores the theoretical, historical, generic, and cultural dimensions of lifewriting. CBR also sponsors the Biography Monograph series, designed to further the study and practice of lifewriting in all its forms.

CBR maintains a library and resource collection and has hosted, since 1988, the public lecture series Brown Bag Biography, part of the center's commitment to supporting and publicizing contributions to lifewriting. The center also hosts iaba-l@hawaii.edu, the listserv and discussion forum for the International Auto/Biography Association.

Language Telecommunications, Resource, and Learning Center

The Language Telecommunications, Resource, and Learning Center–located on the first and second floors of Moore Hall–features a 42 station language laboratory, two class labs with capabilities for showing slides and video including PAL and SECAM, and three language media classrooms with direct Ethernet connections to the Internet. The center has an extensive tape collection with entries in more than 40 languages. The facilities include a professional recording studio complex, a broadcast-standard video studio, and a satellite station consisting of a C and Ku-band tracking dish and a Ku-band broadcast facility. Via satellite the center receives daily programming in some 28 languages on the International Channel. Programming is available to students, faculty, and staff members in a designated viewing room. The center's Multimedia Computer Labs include a Macintosh lab with networked Power Macs and a PC lab with networked Windows 95 Pentium computers. Both labs are equipped with a printer, scanner, and LCD projection system. The computers feature a direct Ethernet connection to the Internet and a host of software for multimedia language use and learning in a wide variety of languages including Chinese, Japanese, Korean, and other non-Roman script languages. The computer labs are available for drop-in use by students, for class sessions and for training workshops for faculty and staff. A separate Faculty Development Lab is available for faculty and staff for materials development and software design. In addition, the center provides a variety of audiovisual equipment and resources for the classroom. The service scope of the center extends beyond the University to include the state, the continental United States, and the international community.

Mānoa Writing Program

The Mānoa Writing Program was created by the UH Board of Regents in 1987 to handle all aspects of the written communication General Education Core requirements. Its efforts are guided by a board of nine professors, each from a different department. The faculty board reviews requests to designate classes as "writing-intensive," offers faculty workshops on teaching with writing, and surveys students in writing-intensive classes. The program publishes material on teaching with writing. It also administers the Mānoa Writing Placement Examination, a full-day placement test given to all incoming students who have not met the University's entry-level writing course requirement. The program's ultimate goal is to help ensure that all Mānoa graduates are ready to meet the different writing tasks that society and their professions will present to them.

Second Language Teaching and Curriculum Center

The Second Language Teaching and Curriculum Center was established in 1988 with the broad mission of improving language instruction in the College of Languages, Linguistics and Literature and facilitating cooperative efforts among departments. The center coordinates professional development programs; provides curriculum and materials development services to departments; supports faculty research and development projects, especially in obtaining grants and contracts; and conducts outreach activities to support Hawai'i's language-teaching community.

National Foreign Language Resource Center

Under the Language Resource Centers program, the U.S. Department of Education awards grants to a small number of institutions of higher education for the purpose of establishing, strengthening, and operating centers that serve as resources to improve the nation's capacity to teach and learn foreign languages effectively. In 1989, the University of Hawai'i was first granted funds to develop a National Foreign Language Resource Center (NFLRC), one of three such centers at the time–the number since has grown to seven.

NFLRC engages in research and materials development projects, conducts summer institutes for language professionals, and makes available a wide variety of publications on center projects and programs. Drawing on the abundance of Asian and Pacific resources afforded by its locale, NFLRC focuses its efforts on the less commonly taught languages, particularly those of Asia and the Pacific, recognizing that competence in these languages is increasingly vital to the nation's future. The projects and educational programs that the center undertakes have broader implications for the teaching of all languages.

American Studies

College of Arts and Humanities
Moore 324
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-8570
Fax: (808) 956-4733
E-mail: amstuh@hawaii.edu
Web: www.hawaii.edu/amst/

Faculty

*P. Hooper, PhD (Chair)—regional and international studies
*W. Chapman, PhD—historic preservation
*M. Helbling, PhD—literature, ethnicity, and cultural theory
*J. Hughes, PhD—politics and women's studies
*F. Matson, PhD—politics and social science
*D. Ogawa, PhD—Asian American and communication studies
R. Perkinson, PhD—southern and western history, race and gender, crime and punishment
*D. Stannard, PhD—social problems
*K. Tehranian, PhD—culture, arts, environment, and society
*M. Yoshihara, PhD—cultural history, race and gender, United States-Asian relations

* Graduate Faculty

Cooperating Graduate Faculty

J. Stanton, PhD—culture and arts

Affiliate Graduate Faculty

S. Armitage, PhD—folklore and regional studies
D. Bertelson, PhD—literature and social thought
H. Kato, PhD—popular culture
J. McCutcheon, PhD—social, cultural, and urban history
W. Murtagh, PhD—historic preservation
B. Riznik, PhD—historic preservation
P. Spickard, PhD—multicultural studies
F. Tang, MA—Asian American relations

Degrees and Certificates Offered: BA (including minor) in American studies, MA in American studies (including dual AMST/MLISc MA), PhD in American studies, graduate Certificate in Historic Preservation

The Academic Program

Since its inception in the 1930s, American studies (AMST) has offered an integrated multidisciplinary exploration of the historical and contemporary American experience. This involves the study of American popular and high culture; environmental issues; institutional structures, including political and economic institutions; systems of thought and belief; and gender, ethnic, racial, and cross-cultural relationships. A combination of historical, literary, social-scientific, and other methodological approaches is used. In addition to such traditional aims, American studies at the University of Hawai'i at Mānoa also explores the role of Hawai'i, the Pacific, Asia, and, to a lesser extent, other parts of the world within the American experience, an objective that imparts a cross-cultural dimension to its program and differentiates it significantly from most other programs in the field.

At the undergraduate level, American studies offers a balanced general education experience, as well as excellent preparation for both advanced study in the field and professional studies ranging from law to travel industry management. Advanced degrees are intended primarily as preparation for college and university-level teaching, but recipients are also engaged in such activities as journalism, library management, business administration, and government service. A dual MA can be taken in cooperation with the Library and Information Science Program. In addition to regular degrees, the graduate Certificate in Historic Preservation is offered as preparation for professional employment in the preservation field.

Affiliations

The department is affiliated with the American Studies Association, National Council of Preservation Education, and National Trust for Historic Preservation.

Advising

The undergraduate adviser advises all undergraduate majors, and the graduate chair advises all graduate students.

Undergraduate Study

Bachelor's Degree

Requirements

Students must complete 30 credit hours, including:

- 6 credit hours from AMST 201, 202, 211, or 212
- 24 credit hours of upper division courses:
  - AMST 381 and 382
  - 6 credit hours of 400-level American studies courses
  - 12 remaining credit hours may include allied humanities and social sciences courses. Selection must form an orderly pattern around an appropriate theme, and approval of the departmental undergraduate adviser is required.

Minor Requirements

Students must complete 15 credit hours, including:

- AMST 381 and 382
- 9 credit hours of 300- or 400-level American studies electives

Graduate Study

Application Requirements

Applicants for graduate programs should present an academic record indicating a broad range of study in the humanities and the social sciences with an emphasis on American culture. Specific requirements for all graduate degrees and certificate programs are detailed in brochures available from the department upon request. Write to Graduate Chair, Department of American Studies, Moore 324, 1890 East-West Road, Honolulu, HI 96822.

Proficiency in a foreign language is not required unless it is necessary for dissertation research. Students having a special career interest in Asia may select courses offered in the Asian studies program to satisfy some degree requirements in American studies.

Courses for the graduate program are to be selected from among the courses listed in the back of the *Catalog*, from appropriate American studies graduate courses and upper division and graduate courses in related fields. Consent of the departmental graduate chair is required for enrollment in all undergraduate courses and all graduate courses in other fields. The courses listed in the back of the *Catalog* are numbered and grouped as follows: 500, Master's Plan B/C Studies; 600–609, introductory courses; 610–689, fields of study courses; 690–699, special topics courses; and 700–800, thesis and dissertation research. AMST 500V, 699V, 700V, and 800V are offered each semester; AMST 600, 601, 602, and 603 are offered annually, and most other 600-level courses are offered once every three years.

Master's Degree

MA candidates are expected to possess the BA degree and have a background knowledge of American culture.

Requirements

MA students may select either the Plan A or Plan B program. Students must complete 33 credit hours as follows:

Plan A (Thesis)

- 6 credit hours of AMST 700
- 18 credit hours in courses numbered 600 and above, including AMST 600, 601, 602, 603 and a graduate seminar course
- 9 credit hours in a chosen field of specialization
- oral examination

Plan B (Non-thesis)

- 18 credit hours in courses numbered 600 and above, including AMST 600, 601, 602, 603 and a graduate seminar course
- 15 credit hours in a chosen field of specialization
- written and oral examinations

More specific requirements are detailed in materials available upon request from the department.

Doctoral Degree

PhD candidates are expected to possess the MA degree in American Studies or its equivalent and should have a scholarly attainment of a high order and widespread intellectual interests.

Requirements

Students must complete 48 credit hours including:

- 18 credit hours in courses numbered 600 and above, including AMST 600, 601, 602, 603 and a graduate seminar course
- 30 credit hours in a chosen fields of specialization

Students must also complete:

- A qualifying examination consisting of two written parts covering each of two areas of concentration chosen by the student, followed by an oral examination dealing with all two areas
- An oral comprehensive examination administered by the dissertation committee
- A dissertation of high quality and its successful oral defense

More specific requirements are detailed in materials available upon request from the department.

Certificate

Graduate Certificate in Historic Preservation

Candidates for the Certificate in Historic Preservation must possess the BA degree. The Certificate in Historic Preservation combines course work and applied experience.

Requirements

Students must complete 15 credit hours of graduate course work:

- 3 credit hours of AMST 675, Preservation: Theory and Practice
- 3 credit hours of AMST 695, Historic Preservation Practicum
- 3 credit hours of ANTH 645, Cultural Resource Management
- 6 credit hours in field of specialization

A maximum of 3 credit hours may be applied simultaneously to the historic preservation certificate and to another degree. Internships are usually undertaken with local firms and organizations that have a preservation interest or with individuals who are qualified to direct independent work in preservation. The program concludes with a formal colloquium presentation.

Additional information and application forms are available upon request from the Historic Preservation Certificate Program.

Anthropology

College of Social Sciences
Social Sciences 346
2424 Maile Way
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E-mail: anthprog@hawaii.edu
Web: www2.soc.hawaii.edu/css/anth/

Faculty

*P. B. Griffin, PhD (Chair)—archaeology and ethnology of hunter-gatherers, technology; Southeast Asia

A. R. Arno, PhD—legal anthropology, ethnography of communication, kinship and social organization; Pacific

*J. M. Bayman, PhD—archaeology, craft production, political economy; North America, U.S. Southwest

*J. M. Bilmes, PhD—linguistic anthropology, social interaction, discourse; Thailand

*C. F. Blake, PhD—critical theory, folk and popular culture, ideology, social movements in the modern world; China

*D. Brown, PhD—physical anthropology, medical anthropology; Polynesia

*A. G. Dewey, PhD—economics, kinship, Javanese conceptual frameworks; Southeast Asia, Pacific

*N. L. Etkin, PhD—biological and medical anthropology, ethnobotony, diet, ethnopharmacology, human variability, infectious disease; West Africa, Pacific, Indonesia

*B. R. Finney, PhD—socioeconomic change, cultural adaptation to sea and space; Pacific Islands

*M. W. Graves, PhD—archaeology, ethnoarchaeology, evolution of social complexity, quantitative analysis; U.S. Southwest, Oceania

*J. M. Hanna, PhD—physical anthropology, biomedical ecology and human adaptations

*T. Hunt, PhD—archaeology, paleoenvironmental reconstruction, evolutionary theory, archaeometry, ceramics; Oceania

*M. Pietrusewsky, PhD—physical and forensic anthropology, human evolution, skeletal biology, bioarchaeology, craniology, distance studies; Pacific and Asia

*B. V. Rolett, PhD—archaeology, archaeozoology, island colonization; Oceania-Polynesia

*L. E. Sponsel, PhD—biological and cultural anthropology, human ecology, foragers, tropical forests, Buddhist ecology, peace studies, human rights and advocacy; Southeast Asia (Thailand), Amazon (Venezuela)

*M. Stark, PhD—archaeology ecology, early village economics, ceramics, ethnoarchaeology; Southeast Asia, U. S. Southwest

*G. M. White, PhD—psychological anthropology, cognition and language, mental health; Melanesia

*C. Yano, PhD—cultural anthropology, popular culture, ethnomusicology, cultural nationalism, emotions; Japan, Japanese Americans

Cooperating Graduate Faculty

R. Cann, PhD—physical anthropology, anthropological genetics, human populations

E. Drechsel, PhD—historical sociolinguistics, ethnohistory, North American Indians; North America

S. Falgout, PhD—social and historical anthropology; Micronesia, Hawai'i

D. Gladney, PhD—ethnicity, nationalism, public culture, religious ideology; China, Central Asia, Turkey

M. Kelly, MA—cultural anthropology, history of land use; Hawai'i

J. Y. Okamura, PhD—ethnicity and ethnic relations, minority higher education; Philippines, Hawai'i

Affiliate Graduate Faculty

J. S. Athens, PhD—evolutionary and agricultural ecology, epistemology of science, archaeology of South America, Micronesia and Hawai'i

N. Barker, PhD—cultural anthropology, religious self-mortification, culture concept, theory of ritual, self-sacrifice and the body; Philippines, Asia

R. Borofsky, PhD—anthropology of knowledge, symbolic analysis, medical anthropology; Polynesia

J. Fox, PhD—land use, forest resources and management, geographical information systems, and spatial information technology; South and Southeast Asia

L. Hartzell, PhD—zooarchaeology, foragers; Hawai'i, Australia West, North America

T. D. Holland, PhD—physical and forensic anthropology, skeletal biology; U.S. Midwest, Southeast Asia

S. A. Lebo, PhD—historical anthropology, 19th century Euro-American and Asian ceramic analysis; Hawai'i, continental U.S.

G. G. Maskarinec, PhD—linguistic anthropology; Himalayas and South Asia

W. B. Masse, PhD—archaeological analysis of marine faunal remains; Micronesia

D. I. Olszewski, PhD—archaeology, lithics, hunter-gatherer adaptations, Hawai'i, U.S. Southeast, Middle East

* Graduate Faculty

T. Rambo, PhD—human ecology, development and change in traditional societies, ethnology of Southeast Asia
Y. Sinoto, DSc—archaeology, ethnology; Polynesia and Japan
D. J. Welch, PhD—archaeology; Hawai'i, Micronesia, Thailand
P. Xenos, PhD—social and historical demography; Southeast Asia
D. E. Yen, PhD—ethnobotany; Oceania, Southeast Asia

Degrees Offered: BA in anthropology, MA in anthropology, PhD in anthropology

The Academic Program

Anthropology (ANTH) is the study of humankind, of the origin and evolution of our species, and of the ways of life of ancient and modern people. It is divided into four main subdisciplines: physical anthropology, archaeology, anthropological linguistics, and cultural anthropology. While physical anthropologists focus upon our biological nature, cultural anthropologists deal with the ways of life of past and present ages. Anthropological linguists look at language as a part of human behavior, while archaeologists study the remains of past cultures to reconstruct former lifestyles.

Students of anthropology gain a basic understanding of the origin and development of humanity useful both for understanding the human condition and as a preparation for work in many fields, not just in anthropology. For example, the department offers a uniquely broad range of courses on the cultures of Asia and the Pacific, as well as on aspects of American society, that provide students with a fund of cultural knowledge and insights upon which to build a career in law, medicine, public health, teaching, business, and other professions. While some BA graduates in anthropology do find employment in anthropology, normally an MA or PhD is required to work as an anthropologist in a university, museum, or other institution. The department has a long-standing graduate program, which trains students in all aspects of anthropology, focusing especially on Asia and the Pacific region. The training emphasizes field research; in any one year students are engaged in such projects as excavating an ancient religious temple on Tahiti, recording ritual life in rural Java, or analyzing the social system of a Japanese factory.

Undergraduate Study

Bachelor's Degree

Requirements

Students must complete 31 credit hours, including these required courses:

- ANTH 200, 210, 215, 215L and 305
- Six 300- and 400-level courses

Three of the 300- and 400-level courses may be from related disciplines with prior approval of the student's adviser.

Graduate Study

Intended candidates for the MA or PhD need not have an undergraduate background in anthropology. All applicants must submit to the department GRE General Test scores and three letters of recommendation at the time of application. Lack of previous training in anthropology may result, however, in study to fill gaps in knowledge. Before being considered for an advanced degree, a student must present evidence of having passed with a B or better at least one undergraduate course in archaeology, physical anthropology, social or cultural anthropology, and linguistics. Applications for admission will be considered for the fall semester only. The deadline for submission of applications is February 1. The deadline for international students is January 15.

The MA program ensures that graduates grasp fundamentals in their elected subfields, while the PhD program provides an opportunity for further specialization.

Master's Degree

Admission to MA candidacy is based upon a candidacy conference with the student and his or her three-person committee held sometime prior to the end of the student's second semester in residence. At that time the student submits, in writing, a proposed program of study that the committee must accept before the student is admitted to candidacy.

Requirements

A candidate for the MA must take two out of four core courses (archaeology, linguistic anthropology, physical anthropology, and cultural anthropology). A core course may be repeated once. A student may take additional core courses to fulfill other course requirements.

An MA candidate must also pass two courses in each of the following categories: method or technique, theory or topic, and culture area. If a candidate needs a course from one of the three categories in his or her program of study and that course is not offered by the department on a timely basis, he or she may petition the graduate chair to substitute a course from outside the department, provided petition is made prior to registration for the course in question. A candidate is required to earn 30 credit hours. Normally, at least 18 credit hours must be taken in the department. In special cases, a candidate may petition the graduate chair to waive this latter requirement. Of the required course work, both plans require at least 18 credit hours in courses numbered 600 or above and approved by the candidate's committee.

Plan A

- 24 credit hours of course work
- Thesis (6 credit hours)

Plan B

- 30 credit hours
- Three papers on anthropological topics, one of which shall be a research proposal to the committee as evidence of scholarly ability

Doctoral Degree

A student completing the requirements for an MA may request admission to the PhD program. In such a case, the committee will evaluate the MA thesis or three papers and will review the quality of previous graduate work. This evaluation will be made at a meeting of the student's committee, which may make a recommendation to the graduate chair concerning admission. In addition to the recommendation of each of the committee members, the graduate chair will require written assessments of the student's course work from each regular faculty member in whose course the student has been enrolled (including 699). The assessment shall include a specific recommendation (or abstention from recommending) to admit or deny admission to the PhD program. Admission to the PhD program requires a two-thirds majority of favorable versus unfavorable recommendations. This final evaluation and decision are made after the meeting to evaluate the MA work. The student receives written notification from the Graduate Dean.

Requirements

PhD candidates must fulfill the requirements for an MA degree in anthropology as a prerequisite. Requirements for obtaining a PhD include submitting an acceptable program plan at a candidacy conference, passing a comprehensive examination, formulating an acceptable dissertation proposal, writing an acceptable dissertation, and successfully defending this dissertation.

A student entering the PhD program with an MA degree from another department of anthropology must pass the core course in his or her area of specialization with a grade of B (GPA of 3.0) or better. This course may be challenged by examination in lieu of taking it for credit. All students are required to take graduate courses (other than reading courses) from at least four different members of the anthropology department.

After admission to the PhD program, the student's MA committee will be dissolved and the student will form a five-member PhD committee. More members may be added if deemed desirable and consistent with a candidate's interest. At least one person must be a graduate faculty member of another department, but the majority of members must be from the Department of Anthropology. Substitutions may be made at any time if a member of the committee is unavailable.

All students entering the PhD program, including those obtaining an MA from the department, are strongly advised to hold a candidacy conference and gain written approval of their five-member committee for the projected program of study by the second semester.

Approximately one semester prior to the comprehensive examination, the student shall submit a detailed description of the areas to be covered, complete with bibliography. The candidate is expected to have read the items contained in the bibliography and be prepared to discuss them in some depth. It is the responsibility of each committee member to suggest additional readings for the bibliography and to suggest any other changes in the proposed agreement. After all committee members have been duly consulted, the student will prepare a final description to be signed by all concerned, including the student, and to be filed with the graduate chair.

The comprehensive examination shall be administered in two parts: (a) a written examination and (b) an oral exam, at which the student will be given the opportunity to clarify and amplify answers to the written component. The written exam will consist of one essay question submitted by each member of the student's committee. It will be closed-book; students will not be permitted to use notes or other aids. An allotment of three hours per question will be given. Scheduling will be flexible, but the total exam must be taken within a two week period.

The oral examination is expected to be scheduled not less than one week and no more than two weeks after the written examination. All members of the committee must be present at the examination. At the oral exam the student will be asked to explain and/or defend answers to the written component. Two hours are to be allotted for this exercise.

If a student fails the comprehensive examination, he or she may be allowed to repeat it. If this examination is failed a second time, the student will be dropped from the graduate program. The committee will provide each student with a written statement detailing the reasons for a negative decision.

After successfully completing the comprehensive examination, the student is required to submit a research proposal for review by the degree committee. A meeting of the committee will be scheduled within two weeks of submission of a final draft of the proposal; the committee will determine whether or not the student is adequately prepared for the fieldwork proposed. A candidate whose field research proposal is approved and who has completed all other requirements is eligible to receive a University ABD certificate.

A student conducting dissertation research among people who do not speak the student's native language will be required, before leaving for the field, to show evidence of oral competence in the most useful field language or of training in linguistic field techniques.

Following the student's submission of a final draft of the dissertation, an oral defense will be scheduled. It is the student's responsibility to see that each member of the committee has a copy of the complete final draft of the dissertation at least four weeks before the scheduled date of the oral defense. The dissertation must be read by no less than three members of the committee, and all members must be present at the oral defense. Procedures for determining final acceptance of the dissertation and awarding the PhD degree are set forth by the Graduate Division. A candidate must complete all the requirements within seven years after admission to the doctoral program. A student unable to meet this deadline may request an extension by written petition to the Graduate Chair describing reasons for the delay. If approved, the request will be sent to the Graduate Dean for a final decision.

Art

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Web: www2.hawaii.edu/art/

Faculty

*J. Wisnosky, MFA (Chair)—painting
*F. Beaver, MA (Associate Chair)—ceramics
*L. Andrews, PhD—Western art history
*R. Bigus, MFA—design
*A. Bush, MFA—design
*P. Chamberlain, MFA—sculpture, multimedia
*G. Chan, MFA—photography
*C. Cohan, MFA—printmaking
*N. Dowling, PhD—Southeast Asian art history
*D. Drexler, MFA—painting
*A. Feeser, PhD—Western art history
S. J. Henley, MFA—graphic design
*P. Hickman, MA—fiber
M. Inoue, PhD—Japanese art history
*R. Jay, PhD—Western art history
*T. Klobe, MFA—design
*R. Kowalke, MFA—painting
*R. Mills, MFA—glass, sculpture
*R. Rodeck, MFA—photography
*F. Roster, MFA—sculpture
*M. Sato, MFA—sculpture
*W. Tanabe, PhD—Japanese art history
H. Tsao, PhD—Chinese art history
*D. Waite, PhD—Pacific art history
*S. Wolfe, MFA—ceramics

Affiliate Graduate Faculty

J. Feldman, PhD—Pacific art history

Degrees Offered: BA in art, BFA in art, MA in art history, MFA in art

The Academic Program

The Department of Art (ART) offers two separate but interrelated programs. Art history, leading to the BA, affords the opportunity to study the arts of Asia, Pacific, and the West in a historical and cultural context. The art studio programs provide students either with a broad-based, liberal arts approach via the BA or with a more focused studio specialization leading to the BFA. The latter is considered more appropriate for students intending to pursue the MFA at the graduate level.

The department is housed in an excellent three-story facility with painting studios, photography and computer labs, and fully equipped printmaking, sculpture, ceramics, fiber, and glass facilities. The University of Hawai'i Art Gallery is a prominent feature of the department's programs. Six or seven major exhibitions are presented each year, many of which have received national recognition.

Advising

Advising is mandatory for all art majors. For advising see the associate chair in Art 142A, e-mail: frank@hawaii.edu

Undergraduate Study

BA Degree

This broad-based art degree provides students with a choice of a studio focus, where a wide range of visual arts media can be explored, or an art history focus, where the visual arts are studied in a historical context.

Requirements

Studio Focus

Students must complete 48 credit hours, including:

- 9 credits of art core: ART 201 and 6 credits of 113, 115, 116
- 27 credits of art studio: 18 credits must be upper division
- 12 credits of art history: 6 credits at the upper division level

Students interested in pursuing a teaching career in elementary and secondary art education should seek advisement from the College of Education.

Art History Focus

Students must complete 42 credit hours, including:

- 11 art history courses (33 credit hours), including ART 171, 172, 180, and 290
- Three studio classes (9 credit hours), selected in consultation with adviser

BFA Degree

The BFA degree in art is designed for those students who desire a focused preparation in the visual arts or who intend to pursue an advanced degree or career in art. Areas of specialization include ceramics, fiber, glass, graphic design, photography, painting, printmaking, and sculpture. Students are encouraged to cross media boundaries, and qualified students may opt to construct an individualized plan of study with faculty guidance and approval.

Students seeking admission to candidacy for the BFA must pass a portfolio review, which can take place only after the following requirements have been met.

1. Completion of art core through 201.
2. Completion of art history requirements: ART 171, 172, 180, and 290 (or equivalent).
3. Completion of one 200-level studio elective not in student's chosen area.
4. Completion of 9 credit hours in chosen area with an average of B or better.
5. Completion of 18 credits in University core requirements exclusive of art department courses.

* Graduate Faculty

Applications for review are due on September 1 for the spring and January 20 for the fall.

Requirements

Students must complete 75 credit hours, including:

- Eight media concentration courses (24 credit hours), as indicated by the program area at the time of declaration (last 9 credit hours must be completed at Mānoa)
- Five art core courses (15 credit hours): 113, 115, 116, 201, 302
- Six art history courses (18 credit hours): ART 171, 172, 180, 290, and two electives
- Six elective studios (21 credit hours)

Minor

Requirements

- 21 credit hours, 15 of which must be from non-introductory courses

Introductory courses used to meet General Education Core requirements cannot be credited toward the minor.

Graduate Study

The Department of Art offers two master's degrees, the MA in art history—Plan A (thesis) or Plan B (non-thesis)—and the MFA in studio—Plan A only.

MA in Art History

The MA in art history emphasizes the arts of Asia and the Pacific. Applicants for the degree must hold a bachelor's degree from an accredited U.S. college or university or its equivalent from a recognized foreign institution. An undergraduate major in art history is desirable, but not necessary. In support of the application for admission, all applicants are required to send directly to the art department prior to the application deadline: three original letters of recommendation, a sample of written work, preferably an art history seminar or term paper, and General Test scores from the GRE.

Plan A Requirements:

Students must complete 36 credit hours, including:

- ART 670 Art Historical Methodology
- 9 credit hours of seminars in Asian and Pacific art history
- 6 credit hours of ART 700 or thesis

Students intending to engage in studies leading to the PhD are strongly encouraged to complete course work beyond the minimum MA Plan A requirements.

Plan B Requirements:

The non-thesis program is for students wishing to teach in community colleges or at the high school level. Required are 30 credit hours of which 18 must be taken in courses numbered above 600 including:

- ART 670 Art Historical Methodology
- 9 credit hours of seminars in Asian and Pacific art history

Students opting for Plan B must take a minimum of 18 credits in courses numbered above 600 (including ART 670).

In either plan up to 9 credits, with adviser's approval, may be earned in appropriate advanced courses in other University departments.

The more suitable plan will be mutually determined by the faculty and the student.

The program expects students to pass a comprehensive exam in the third semester of residency. Its purpose is to demonstrate a broad knowledge of Asian and Pacific art history. Those failing must pass successfully on a second attempt. Students must also demonstrate a reading knowledge in a foreign language appropriate to their field of specialization, chosen in consultation with the area adviser.

MFA Degree

The MFA is the terminal degree in studio art. The normal period of study is three years in residence. Areas of specialization include ceramics, electronic media, fiber, glass, graphic design, painting, photography, printmaking, and sculpture. Although most MFA applicants apply to one of the above media specializations for admission, students may take electives in more than one medium and are encouraged to investigate new genres.

Applicants for the MFA must present evidence of a BFA or a BA with a strong studio art and art history background. The Department of Art acknowledges that some MFA applicants may not fit traditional criteria and will thus consider exceptional bachelor's degree recipients that exhibit relevant backgrounds, strong commitment, and distinct potential in the visual arts. An applicant with a nontraditionally graded undergraduate or graduate transcript must submit GRE scores and course performance report forms if the transcript contains 25 percent or more of the applicant's credit hours.

Supporting materials must include approximately 20 slides of original work that illustrate abilities in an area of specialization, as well as potential for development within the scope of the department's facilities and personnel. This visual material and three letters of recommendation should be sent to the Department of Art. The application form for graduate admission should be sent under separate cover to the Graduate Division.

Deficient or incompatible undergraduate preparation may result in admission on a conditional basis and will require, at the discretion of the graduate faculty, additional course work.

After acceptance into the graduate program, admission to candidacy for the MFA degree will be based upon results of the graduate evaluation and a positive review of course work. The graduate evaluation is administered in the fall to all classified students who have completed at least one semester of study. Those failing must successfully pass on their second attempt.

Failure to meet the requirements for continued registration or to show progress in course work will lead to probation and/or dismissal from the graduate program.

Requirements

Students must complete 60 credit hours, including:

- 24 credit hours in 600-level courses within the area of specialization, with a minimum of 6 credit hours at each of three graduate studio levels. (These courses are repeatable and must be taken in units of 3 or 6 credits per semester. Conditional or unclassified graduate students may enroll only at level 1 for a maximum of 6 credits. Consent of instructor is required.)
- Two art history courses (numbered 300 or above)
- ART 690
- ART 700 thesis, including an exhibition and written documentation

As part of the 60-credit degree requirement, ART 699 Directed Work may be taken for a maximum of 15 credits. Art courses numbered 300 and above and not required at the undergraduate level in the area of specialization are acceptable for graduate credit. Elective courses also may be selected from any other University department, provided such study is deemed useful and pertinent to the student's degree plan. All elective courses require appropriate preparation and the consent of the instructor and graduate student's adviser.

Astronomy

College of Natural Sciences
Watanabe 416
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E-mail: grad-chair@ifa.hawaii.edu
Web: www.ifa.hawaii.edu/gradprog

Faculty

*C. G. Wynn-Williams (Graduate Chair), PhD—infrared astronomy
*J. Barnes, PhD—astrophysical theory
*A. M. Boesgaard, PhD—stellar spectroscopy
*K. Chambers, PhD—extragalactic astronomy
*A. S. Cowie, PhD—interstellar matter
*L. L. Cowie, PhD—extragalactic astronomy
*D. N. B. Hall, PhD—infrared astronomy
*J. N. Heasley, PhD—stellar photometry
*J. P. Henry, PhD—x-ray astronomy, instrumentation
*G. H. Herbig, PhD—stellar spectroscopy
*K. Hodapp, PhD—infrared astronomy
*E. M. Hu, PhD—extragalactic astronomy
*D. C. Jewitt, PhD—planetary astronomy
*R. Joseph, PhD—infrared astronomy
*N. Kaiser, PhD—theoretical astronomy
*R-P. Kudritzki, PhD—stellar astronomy
*J. R. Kuhn, PhD—solar astrophysics
*B. J. LaBonte, PhD—solar physics
*G. Luppino, PhD—extragalactic astronomy
*E. G. Martin, PhD—stellar astronomy
*R. McLaren, PhD—infrared astronomy
*K. Meech, PhD—planetary astronomy
*D. Mickey, PhD—solar physics
*T. Owen, PhD—solar system astronomy
*A. J. Pickles, PhD—extragalactic astronomy
*J. T. Rayner, PhD—infrared astronomy
*C. Roddier, PhD—adaptive optics
*F. Roddier, DSc—adaptive optics
*D. B. Sanders, PhD—infrared and millimeter astronomy
*T. Simon, PhD—stellar spectroscopy
*A. N. Stockton, PhD—extragalactic spectroscopy
I. Szápudi, PhD—cosmology
*D. Tholen, PhD—planetary science
*A. T. Tokunaga, PhD—infrared astronomy
*J. Tonry, PhD—extragalactic astronomy
*R. B. Tully, PhD—galaxies and cosmology
*R. Wainscoat, PhD—extragalactic astronomy

* Graduate Faculty

Degrees Offered: MS in astronomy, PhD in astronomy

The Academic Program

Astronomy (ASTR) is the branch of science that studies the structure and development of the physical world beyond Earth. It includes the study of planets and other objects of the solar system; the sun and stars and their evolution; the interstellar medium; the nature and dynamics of star clusters, galaxies, and clusters of galaxies; and the study of the nature and history of the universe itself—of the physical world taken in its largest extent in space and time.

Incomparable facilities for ground-based observational astronomy in the optical, infrared, and submillimeter regions of the spectrum reside in Hawai'i. The University of Hawai'i's facilities are located on Haleakalā on the island of Maui at an elevation of 3,000 meters and on Mauna Kea on the Big Island of Hawai'i at an elevation of 4,200 meters. The summit of Mauna Kea is internationally recognized as the best observing site in the world. As a consequence, the major telescopes of 11 nations are located there, and the University of Hawai'i is guaranteed access to them. The Institute for Astronomy of the University of Hawai'i has major programs in the study of galaxies and cosmology, stellar and interstellar astronomy, solar astronomy, infrared and submillimeter astronomy, and planetary astronomy.

Graduate Study

Undergraduate preparation for admission to the graduate program in astronomy includes a minimum of 35 undergraduate credit hours in physics or astronomy, some of which must be in atomic and nuclear physics, electromagnetism, mechanics, optics, and thermodynamics. An undergraduate course in introductory astronomy is recommended. Courses in mathematics through differential equations are also required. Official scores of the General Test and the physics subject test of the GRE must be submitted prior to admission. The deadline for

submission of applications is February 1. The deadline for international students is January 15.

The graduate program is directed toward producing research scientists at the PhD level. The MS degree is also offered. Areas of concentration emphasize the use of the University's observatories for the solution of problems in solar physics, planetary astronomy (atmospheres and surfaces), stellar astronomy, extragalactic systems, and cosmology.

Master's Degree

Graduates with a terminal MS degree have found employment in space-related industries and teaching positions in high schools and two-year colleges. Such teaching positions may require additional courses in education.

Requirements

Course requirements for the MS Plan B degree (which must be earned en route to the PhD) are a minimum of 30 credit hours, which would normally include ASTR 633, five additional 600-level astronomy courses, 3 credit hours of ASTR 734, 735, or 736, and 9 credit hours of ASTR 699. Exceptions to these requirements can be made in special cases.

Doctoral Degree

Graduates with the PhD have found employment primarily on college and university faculties, in government laboratories, and in space-related industry.

Requirements

Additional courses are not necessarily required for the PhD, but the student's program of courses must be judged by the faculty to provide both adequate general background and specialized preparation for research. Normally, students will be expected to be familiar with the content of all the 600-level astronomy courses.

Students must pass the qualifying examination (which also serves as the final examination for the MS Plan B) and the oral comprehensive examination before admission to candidacy for the PhD. They must write an acceptable dissertation based on original research and defend it in a pubic final examination before being awarded the PhD degree.

Biology

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Web: www.biology.hawaii.edu

Faculty

A. K. Fok, PhD (Director)—cell biology
H. Ako, PhD—analytical biochemistry
D. Borthakur, PhD—molecular genetics of rhizobia, plant-microbe interaction, biotechnology
K. W. Bridges, PhD—systems ecology
R. L. Cann, PhD—molecular and evolutionary genetics
D. A. Christopher, PhD—photosynthesis, plant biochemistry, plant molecular biology
S. Conant, PhD—ornithology, ecology, behavior, conservation biology
C. C. Daehler, PhD—population genetics and dynamics, breeding system, reproductive ecology, herbivore of envasive plants
H. G. de Couet, PhD—molecular cell biology and genetics
D. S. Haymer, PhD—molecular evolution and developmental genetics
J. A. Hunt, PhD—molecular and evolutionary genetics
D. M. Jameson, PhD—fluorescence spectroscopy; biomolecular dynamics and interactions; ribosomal proteins
R. A. Kinzie III, PhD—coral reef biology, marine ecology, limnology
T. W. Lyttle, PhD—population genetics, cytogenetics
W. C. McClatchey, PhD—ethnobotony
M. Merlin, PhD—biogeography, natural history of the Pacific
C. W. Morden, PhD—molecular systematics and evolution of plants and algae
S. Robinow, PhD—developmental neurobiology, genetics, molecular biology
J. Seifert, PhD—biochemical toxicology
S. E. Seifried, PhD—macromolecular interactions, transcription factor recognition of specific DNA sequences, protein subunit assembly
C. Z. Womersley, PhD—environmental physiology, biochemical adaptation, parasitology
G. J. Wong, PhD—mating systems and biosystematics of basidiomycetes

Degrees Offered: BA in biology, BS in biology

The Academic Program

The Biology Program (BIOL) is a cooperative program whose faculty members are from the Biology Program and the Departments of Botany, Cell and Molecular Biology, Microbiology, Molecular Biosciences and Biosystems Engineering, and Zoology. It provides an academic home to students who wish to pursue a broad training in the biological sciences.

Biology is a study of living organisms at all levels. Some students may prefer to focus on the anatomy of the cell and the chemical processes occurring in it. Others may prefer to concentrate on the physiological processes of plants or animals or on microorganisms and the roles they play in the environment or in causing disease. Students will also be introduced to the anatomy of plants and animals, their evolutionary histories, their interactions in the ecosystems in which they occur, and their behavior.

Biology may be studied as a liberal arts major, but most students plan to use it as preparation for some sort of professional work, such as aquaculture, biotechnology, dentistry, forestry, marine biology, medicine, optometry, and pharmacy.

The bachelor's degree in biology is rarely adequate preparation for any of the professions to which these students aspire; one to eight years of additional training may be necessary before the person is fully qualified to practice in one of these fields.

The biology program makes every effort to provide all of its students with broad training in the field by requiring some course work in each of the major areas of biology. This provides the best kind of background for future specialization and also introduces students to subjects with which they may not be familiar but which may be of great importance to them, either as a vocational or nonprofessional interest.

Advising

Student advising is mandatory. Prospective majors should come to Dean 2 for advising immediately, so as to design a curriculum that satisfies program requirements.

Undergraduate Study

BA Degree

Requirements (C grade minimum)

- BIOL 172, 265, 275, and 375 including all related laboratories
- 14 credit hours in approved courses, including one each from botany, microbiology, physiology, and zoology
- One or more laboratory courses at the 300 level or above

Related Requirements (D grade minimum)

- CHEM 161, 162, 272 plus laboratories and 273
- PHYS 151 and 152 or 170 and 272 plus laboratories
- MATH 215 or 241
- ICS 101/101L

BS Degree

Requirements (C grade minimum)

- BIOL 172, 265, 270, and 375 including all related laboratories
- One course each from morphology/systematics and physiology
- BIOC 441 or BIOL/ENBI 402 or BIOL/CMB 405
- 15 credit hours in approved courses at the 300 level or above in one of the following tracks or concentrations:
  - cell/molecular biology
  - ecology, evolution and conservation biology
  - general biology
  - marine/aquatic biology
  - organismic biology
- 1 or 2 credits of directed research in approved disciplines
- One or more laboratory courses at the 300 level or above
- The above courses to include one or more courses at the 300 level or above each from botany, microbiology, and zoology

Related Requirements

- CHEM 161, 162, 272 plus laboratories and 273
- PHYS 151 and 152 or 170 and 272 plus laboratories
- MATH 215 and 216 or 241 and 242
- ECON 321 or MATH 231
- ICS 101/101L

Minor

Requirements (C grade minimum)

Students must complete BIOL 172, 265, 275, and 375 plus related laboratories; and a minimum of 3 credits from the following:

- BIOL 363, 399, 401, 406/406L, 407/407L, 409, 425, 441, and 499
- Approved upper level botany, microbiology, and zoology courses

Botany

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Faculty

*S. C. Keeley, PhD (Chair)—molecular systematics, evolution in island systems

*K. W. Bridges, PhD—systems ecology

*G. D. Carr, PhD—biosystematics, cytotaxonomy, chromosome evolution

*C. C. Daehler, PhD—population biology, invasive plants, plant-herbivore interactions

*D. C. Duffy, PhD—conservation, restoration ecology

*G. H. Goldstein, PhD—physiological ecology of vascular plants, tropical plant ecology

*W. C. McClatchey, PhD—Pacific ethnobotony, ethnopharmacology

*C. W. Morden, PhD—molecular systematics and evolution of plants and algae

*C. M. Smith, PhD—physiological ecology of marine macrophytes, marine ecology, cell biology

*A. H. Teramura, PhD—global climate change, ozone depletion, physiological ecology

*D. T. Webb, PhD—plant anatomy, electron microscopy, morphogenesis, symbiosis

*G. J. Wong, PhD—mating systems and biosystematics of basidiomycetes

Cooperating Graduate Faculty

D. Borthakur, PhD—plant molecular genetics

D. A. Christopher, PhD—gene regulation of photosynthesis, uv effects

* Graduate Faculty

D. E. Hemmes, PhD—plant ultrastructure (University of Hawai'i at Hilo)
C. Hunter, PhD—reef ecology
Y. Sagawa, PhD—cytogenetics, tissue culture
W. S. Sakai, PhD—ultrastructure, physiological anatomy (University of Hawai'i at Hilo)
C. S. Tang, PhD—allelopathy, phytochemistry, plant biochemistry

Affiliate Graduate Faculty

J. J. Ewel, PhD—tropical forest succession
K. C. Ewel, PhD—ecology, management practices, wetland and terrestrial ecosystems
D. E. Gardner, PhD—biocontrol, taxonomy of rust fungi
D. R. Herbst, PhD—endangered and threatened Pacific flora, plant morphology
G. T. Kraft, PhD—systematics and evolution of Pacific Basin macroalgae
L. L. Loope, PhD—ecology, conservation of rare and endangered species (Maui)
W. A. Whistler, PhD—systematics, Pacific ethnobotany

Adjunct Faculty

A. K. Chock, MS—Hawaiian ethnobotany
R. Gay, MS—plant ecology
D. H. Lorence, PhD—systematics of flowering plants (Kaua'i)

Degrees Offered: BA in botany, BS in botany, MS in botanical sciences (botany), PhD in botanical sciences (botany)

The Academic Program

The University of Hawai'i at Mānoa has the only botany department (BOT) located in a tropical environment in the United States. Both aquatic and terrestrial tropical ecosystems provide the subjects of research and teaching. The department is committed to broad-based botanical training that focuses on developing an understanding of Hawai'i's unique island environment. While it maintains traditional areas of botanical study, the department also uses new approaches and current technologies. It has faculty in anatomy, ecology, systematics, ethnobotany, physiology, and population and evolutionary biology. Research programs focus on ecology, evolution and conservation of Hawai'i's ecosystem and unique endemic flora; the ecology and physiology of marine macroalgae; invasion biology by alien weeds; and the uses of plants by the human cultures of the Pacific Basin. Participation in the interdepartmental undergraduate biology program and the graduate program in ecology, evolution and conservation biology provides interactions with other departments and expands opportunities for breadth in research and instruction. All botany faculty members, regardless of rank, teach courses in the undergraduate curriculum as well as at advanced levels.

The department offers bachelor of arts, bachelor of science, and minor degrees in botany at the undergraduate level; the MS and PhD degrees at the graduate level. Undergraduate majors follow a number of career paths leading to employment as naturalists, environmental planners, policy makers, conservation biologists, teachers, researchers, and museum or organizational directors. A number of graduates have assumed important positions in public and private institutions at the national and international levels. Support at the undergraduate and graduate levels is available via competitive tuition waivers and scholarships. Teaching and research assistantships are available at the graduate level.

The botany programs strongly emphasize field experience and hands-on laboratory training with locally important plants, their environment, historical and present uses, as well as the unique aspects of plant evolution and ecology in Hawai'i and the Pacific. The department's World Wide Web site (www.botany.hawaii.edu) allows glimpses into the many environments and special plants in Hawai'i, and provides further information about faculty interests and research.

Over half of all the endangered plant species in the United States are endemic to Hawai'i. Botanical knowledge and understanding are essential to the continued preservation of these unique plants. The botany department cooperates with government and private agencies (see "Affiliations" below) in conservation efforts for these species. The department also provides identifications and fundamental knowledge about Hawai'i's unique plants to local citizens, schools, and state and federal agencies.

Hawai'i's location provides botany students with the best opportunity for exploration of tropical marine or terrestrial ecosystems available anywhere in the United States. The varied environments and climates present in the islands allow work from oceanic reefs to the tops of snow-covered volcanoes. The isolation and geology of the islands have produced a unique flora, unmatched in its potential for effective study of systematic, evolutionary, ecological, and ethnobotanical questions.

Affiliations

Botanical studies are enhanced by cooperative working relationships between the department and Hawai'i Institute of Marine Biology, Harold L. Lyon Arboretum, Kewalo Marine Laboratory of the Pacific Biomedical Research Center, Pacific Cooperative Studies Unit of the National Park Service, The Nature Conservancy, State of Hawai'i Department of Land and Natural Resources, U.S. Fish and Wildlife Service, National Tropical Botanical Garden, Honolulu Botanical Garden, Herbarium Pacificum and the Department of Botany of the B. P. Bishop Museum, Hawai'i Agriculture Research Center (formerly Hawaiian Sugar Planters' Association), and Waikīkī Aquarium.

Advising

Student advising is coordinated by the undergraduate adviser who is available to talk with prospective majors about their interests. An information sheet is available in the department office. Graduate students entering the department are assigned an interim committee of three faculty members who provide general advice. The students committee and the Chair of Botanical Sciences oversee requirements and provide a link between the Graduate Division and the student. Graduate students are encouraged to interact with each faculty to become acquainted with various research approaches and areas of expertise. Once a research topic has been identified, a

permanent committee will be established to provide specific assistance.

Undergraduate Study

BA Degree

The BA degree provides students flexibility to pursue a broad liberal arts educations and still gain a sound foundation in botany with an area of particular interest. Courses are available in conservation, ecology, ethnobotany, evolution, physiology, structural botany, systematics, and selected faculty research specialties. The courses applied toward the botany major may be selected with the student's interest area in mind.

Requirements

- 28 semester hours in approved biological courses beyond BOT 101 and 101L or equivalent
- BOT 201/201L and 351/351L
- 2 credit hours of BOT 399
- One option from each area:
  - ecology and conservation: BOT 350, 450, 453, 456, or 482/482L
  - form and function: BOT 311, 410/410L, 446, 470/470L
  - genetics and evolution: BIOL 275/275L, 375/375L, BOT 450, 462, CMB 351
  - organisms: BOT 361, 430, 480
- CHEM 151/151L, 152/152L, or higher
- ICS 101/101L
- PHYS 100/100L or higher

Prospective majors should consult the department promptly to design a curriculum that satisfies these requirements.

BS Degree

The BS degree is designed for those students who plan a career in science with an emphasis on plants, especially those intending to do graduate studies. A full complement of basic courses in biology, chemistry, math, and physics is required in addition to botany courses. As with the BA degree, students may choose among a variety of courses to fulfill requirements for the major.

Requirements

- BIOL 171/171L, 172/172L and the specific requirements in the following areas:
  - cell and molecular biology: BIOL 275/275L, BOT 470/470L
  - ecology and conservation: BIOL 265/265L or BOT 351/351L and one of BOT 350, 450, 453, 456, 482/482L
  - organismal and structural botany: BOT 201/201L, 361, 311 or 410/410L, and 430 or 480
  - genetics and evolution: BIOL 375/375L, BOT 462
- CHEM 161/161L, 162/162L, 272/272L
- ICS 101/101L
- MATH 241 and 242/242L
- PHYS 151/151L, 152/152L

Prospective majors should consult the department promptly to design a curriculum that satisfies these requirements. BOT 101 to BOT 160 do not fulfill major requirements.

Minor

Requirements

Students must complete 15 credit hours in non-introductory courses with a grade of C or higher.

For evolutionary botany:

- BOT 201/201L, and 462
- Electives: BOT 410/410L, 430, 450, 461, 470/471L, 480, 662, or 663

For tropical field botany:

- BOT 453
- Electives: BOT 201/201L, 350, 361, 450, and 454

Individual programs may be designed by the student and adviser for approval by the faculty.

Graduate Study

The department offers programs leading to MS and PhD degrees. Hawai'i's location offers unique opportunities to study the patterns and processes of evolution, adaptation, and morphological and physiological variations with a geographically variable and isolated setting. Faculty expertise spans from the molecular to the whole organism in marine and terrestrial environments, with emphasis on evolutionary biology, ecology, ethnobotany, molecular evolution, physiology, structural botany, and systematics. The faculty includes a number of nationally and internationally recognized scientists in ecology, ethnobotany, physiological ecology, and systematics.

In addition to the previously listed affiliations, botany is closely affiliated with the program in ecology, evolution, and conservation biology, providing a variety of opportunities for graduate student education, research, and support.

Recipients of the MS degree often teach at the high school level, pursue careers with government agencies such as the U.S. Fish and Wildlife Service or National Park Service, or work with environmental organizations like the Nature Conservancy or the Sierra Club. Those with a PhD may teach and/or conduct research in private industry or in colleges and universities or work with environmental organizations or the government.

A brochure listing faculty members and their research areas and publications is available from the botany office and on the World Wide Web (www.botany.hawaii.edu.). Applications for admission and opportunities for financial aid and support are available upon request.

At the time of application, an official record of the student's performance on the GRE General Test must be submitted to the department. The subject test in biology is

also recommended. Three letters of recommendation from persons who can appraise the student's aptitude for advanced work are required. Students will be evaluated for pre-program preparation in chemistry, physics, mathematics, genetics, and basic areas of botany; if accepted, students must make up pre-program deficiencies before they can advance to candidacy. Application deadlines are February 1 for fall semester and September 1 for spring semester. Normally, teaching assistantships are available for the beginning of fall semester, but openings may occur mid-year.

MS and PhD students are admitted to candidacy when they have successfully completed any requirements and pre-program deficiencies identified by their committee and after they have demonstrated the ability to collect, analyze, integrate, and communicate scientific information effectively in the English language. This requirement may be satisfied by a class paper, publication, or other written evidence deemed acceptable by the committee.

Because scientific findings are typically presented orally, as well as in writing, all students must gain and demonstrate proficiency in the presentation of seminars. Students must complete at least two BOT 610 seminars to satisfy this requirement. In addition, MS Plan A and PhD students must present two public seminars: first, outlining the background of a research problem and the student's proposed research program; and second, at the conclusion of their program, describing the research results and conclusions. The latter seminar also includes a final examination by the thesis or dissertation committee. The final examination for the MS Plan B students includes the presentation of a public seminar summarizing the results of one of their directed research studies.

Master's Degree

Plan A (thesis) and Plan B (non-thesis) are separate MS programs with distinct purposes. Before admission to candidacy, the plan that a candidate intends to follow must be declared and approved. Plan A is the usual program to be taken by candidates. Plan B is for students who do not intend to make research in botanical sciences their profession. Plan B programs emphasize the methodological aspects of botanical sciences.

MS Plan A (Thesis) Requirements

For Plan A, a minimum of 30 credit hours is required. Of that, a total of 12 credit hours shall be for thesis and a minimum of 18 additional credit hours for courses approved by the candidate's committee.

MS Plan B (Non-thesis) Requirements

For Plan B, a minimum of 30 credit hours is required. Of that, a total of 18 credit hours shall be earned in the major field or an approved related field in courses numbered 600 and above. Of these credits, at least 6 (but not more than 9) must be for directed research in aspects of botanical sciences chosen by the candidate in consultation with his or her committee.

Doctoral Degree

The PhD program includes gaining a working knowledge in an approved foreign language or other research-tool subject, as well as passing a comprehensive examination and writing a dissertation. Suitability of the language or tool subject is determined by the graduate faculty according to the student's area of specialization, and proficiency is ordinarily determined by examination or satisfactory completion of a specific course of study.

Requirements

The comprehensive examination is solely oral, or a combination of oral and written, and is conducted by the candidate's committee, plus any members of the graduate faculty who wish to attend. In addition to general botany, the candidate is examined in-depth in areas of related disciplines that have been previously agreed upon by the student and the committee.

The dissertation is expected to be an original contribution based on independent research. It is initiated by the preparation of a critical review of the literature that becomes the basis for a dissertation proposal. Dissertation research for the PhD degree is carried out in an aspect of botanical sciences for which a member of the graduate faculty of the field will accept responsibility as committee chair.

Chemistry

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Web: www.chem.hawaii.edu

Faculty

*K. Seff, PhD (Chair)—physical chemistry, intrazeolitic chemistry, structure determination by x-ray crystallography

*G. Andermann, PhD—physical analytical chemistry, surface chemistry, natural products material science, x-ray spectroscopy, optical properties, superconductors

*T. T. Bopp, PhD—physical chemistry, nuclear magnetic resonance

*R. E. Cramer, PhD—inorganic chemistry, structure and bonding of metal complexes, ionophores

*D. E. Harwell, PhD—inorganic and main group synthesis, materials science, supramolecular construction

*J. D. Head, PhD—theoretical chemistry, electronic structure determination of large molecules and clusters

*T. K. Hemscheidt, PhD—organic and bioorganic chemistry, biosynthesis of natural products

*D. Hoffmann, PhD—biochemistry and molecular biology of natural products, biosynthesis in cyanobacteria (blue-green algae)

* Graduate Faculty

*C. M. Jensen, PhD—inorganic and organometallic chemistry, polyhydride and dihydrogen metal complexes, homogeneous catalysts, hydrogen storage materials
*K. K. Kumashiro, PhD—physical chemistry, solid-state nuclear magnetic resonance of proteins and peptides
*R. W. Larsen, PhD—physical and biophysical chemistry, time-resolved optical spectroscopy, protein structure/function, electron transfer and biocatalysis
*R. S. H. Liu, PhD—organic and bioorganic chemistry, photochemistry, visual pigments
*K. Michael, PhD—organic and bioorganic chemistry, synthesis of carbohydrates, molecular recognition
*R. E. Moore, PhD—organic chemistry, structure determination and biosynthesis of natural products from microalgae marine organisms
*D. W. Muenow, PhD—physical chemistry, high-temperature chemistry, geochemistry, mass spectrometry
*M. A. Tius, PhD—organic chemistry, synthesis of natural products

Degrees Offered: BA in chemistry, BS in chemistry, MS in chemistry, PhD in chemistry

The Academic Program

Chemistry (CHEM) stands at the crossroads between physics and biology. As biological processes are examined in ever finer detail, chemistry is increasingly called upon to provide the insights, techniques, and materials needed to understand the workings of living organisms, including ourselves. Chemistry is thus a popular major for those interested in biomedical careers. In another direction, chemistry is also essential to the search for solutions to the ecological problems created by the ever-expanding range of human activities.

As a major, chemistry provides a solid foundation of scientific knowledge and experimental skills that enables one to specialize in many directions toward careers in research, teaching, business, or professional practice. Also, because virtually all constructed things we see and use in our daily lives involve chemistry, there is a huge pool of jobs for chemists in the manufacturing industries.

Undergraduate Study

BA Degree

Requirements

- 27 credit hours in chemistry courses numbered 200 and above, including CHEM 272/272L, 273/273L, 274/274L, 333/333L, 351, and 352/352L
- Math Calculus III
- PHYS 170/170L, and 272/272L
- Recommended languages: German, French, Russian, or Japanese

BS Degree

Requirements

- 40 credit hours in chemistry courses numbered 200 and above, including CHEM 272/272L, 273/273L, 274/274L, 333/333L, 351, 352/352L, 422, 423 and 443
- A minimum of 6 credits from CHEM 399, 445, 601, 602, 621, 622, 623, 631, 632, 633, 641, 642, 643, 651, 653, or 658, HON 493 and 494, ENBI 402 or BIOC 441
- Math Calculus III
- PHYS 170/170L and 272/272L
- Recommended electives: Math Calculus IV and PHYS 274
- Recommended languages: German or French

Minor

Requirements

- 17 credit hours in chemistry courses numbered 200 and above, including CHEM 272/272L, 273/273L, 274/274L, and 351

Graduate Study

The department offers MS and PhD research and study opportunities in inorganic, organic, and physical chemistry, with specialized research opportunities in geochemistry and marine-related chemistry.

Intended candidates for the MS or PhD must present the minimum undergraduate preparation in general, organic, analytical, and physical chemistry courses. Foreign applicants for the MS and all PhD applicants must take the GRE General Test and subject test in chemistry.

Graduate study in chemistry consists of course work, independent study, teaching, and research. A thesis or dissertation based on original research is the most important part of the master's or doctoral degree respectively. Candidates for advanced degrees are required to serve as teaching assistants for a portion of their program.

Additional details concerning MS and PhD degree requirements, as well as assistantships available to prospective students, are outlined in brochures available upon request from the department.

Master's Degree

Requirements

The candidate for the MS in chemistry (Plan A only) is granted 12 credit hours for an acceptable thesis. The remaining 18 credit hours must be selected from acceptable graduate courses in chemistry (listed in the back of this *Catalog*) or from graduate offerings in mathematics and the natural sciences. Required courses are CHEM 691 or 692, and 700.

Doctoral Degree

Requirements

Doctoral candidates must complete a minimum of six semesters of graduate study of which at least three semesters must be in residence at the University. Courses are selected from acceptable graduate courses in chemistry listed in the back of this *Catalog* and from graduate offerings in related disciplines as directed by the faculty. Candidates must demonstrate mastery of core material in graduate courses in their chosen areas. Each candidate must pass a comprehensive oral examination consisting of the defense of an original research proposal written by the candidate and a résumé of the candidate's dissertation research and its current status.

The most important requirement for the PhD degree is the research project that culminates in the dissertation. Prior to beginning the second semester of study, each candidate selects one member of the chemistry graduate faculty to serve as his or her research director. The research director works with the candidate throughout his or her program and chairs the candidate's dissertation committee.

More information about the chemistry department and its programs can be found on its Web site.

Communication

School of Communications
College of Social Sciences
George 301
2560 Campus Road
Honolulu, HI 96822
Tel: (808) 956-8715
Fax: (808) 956-5396
Web: www.soc.hawaii.edu/css/com/

Faculty

*T. Brislin, PhD (Chair)—mass communication, journalism, ethics
*D. M. Davis, PhD (Graduate Chair)—social impact of communication technologies, telecom services, communication and gender
*J. C. Ady, PhD—intercultural and organizational communication
*G. Fontaine, PhD—intercultural and organizational communication
*T. Kelleher, PhD—media campaigns and effects
*J. I. Kim, PhD—communication theory and research, development communication, network analysis, diffusion of innovations
*E. N. Kunimoto, PhD—health communication, intercultural communication
C. G. R. Macdonald—multimedia, telecommunication, research
*M. Tehranian, PhD—political economy of communication, telecommunication policy and planning, communication and international development
*R. Vincent, PhD—media systems and institutions, policy, processes and effects
*D. J. Wedemeyer, PhD—communication policy and planning, telecommunication, forecasting

* Graduate Faculty

Cooperating Graduate Faculty

A. R. Arno, PhD—communication law, ethnography of communication
A. Auman, MA—journalism
R. Brislin, PhD—cross-cultural communication
L. D. Frazier, EdD—public relations
C. Ho, PhD—communication technologies
M. Jackson, PhD—library sciences/information services
B. Keever, MS—journalism
W. Remus, PhD—decision sciences
M. Shapiro, PhD—political science

Affiliate Graduate Faculty

E. Buck, PhD—popular culture
E. Casino, PhD—intercultural communication
G. C. Chu, PhD—communication and cultural change
W. Dissanayake, PhD—intercultural communication and communication theory
M. Jussawalla, PhD—telecommunication economics
S. A. Rahim, PhD—communication and cultural change

Degrees Offered: BA in communication, MA in communication, PhD in communication and information sciences (interdisciplinary)

The Academic Program

Communication (COM) study provides undergraduate and graduate students an academic climate consistent with the mission of the College of Social Sciences. The program focuses on research and active learning in fundamental communication processes with specific emphasis on the areas of interpersonal communication, intercultural communication, international communication, organizational communication, telecommunication, and multimedia production as preparation for fruitful careers, enlightened citizenship, and lifelong learning.

In addition to the faculty and staff, resources include both a state-of-the-art media laboratory, computer-communication laboratory, and teleconferencing room. The internship program facilitates the merging of academic knowledge with applied experience in the students' fields of interest.

Affiliations

The East-West Center, Pacific Telecommunications Council, PEACESAT, Hawai'i Interactive Television System (HITS), and the many international conferences dealing with Asian/Pacific affairs provide a stimulating environment for international and intercultural communication.

Advising

Each undergraduate major is assigned a faculty adviser. In addition, an undergraduate chair and graduate assistant provide a general point of contact for aspiring and declared majors. The graduate program parallels the undergraduate advising structure. However, once a student is admitted to candidacy, the student chooses a permanent adviser for the remainder of his or her program.

Undergraduate Study

The undergraduate program offers courses that provide students with a sound understanding of fundamental communication processes in contexts ranging from dyads and small groups to formal organizations, the community, and society at large. The program also provides students the opportunity to select courses that allow them to specialize in a variety of interest areas within the field, including interpersonal communication, intercultural communication, international communication, organizational communication, telecommunication, and multimedia production.

Bachelor's Degree

Requirements

Students must complete 36 credit hours of communication courses with a 2.5 GPA, including the following:

- Introduction to Communication (COM 201)
- At least 12 credits at the 400 level or above
- Senior Thesis Project (COM 490)

To declare a major in communication, students must complete the Introduction to Communication (COM 201) with a "C" or better and have at least a 2.5 GPA in all University of Hawai'i courses. Upon declaration of their major, students are assigned a personal faculty adviser to assist them in their progress through the program. Students select the remaining number of credit hours from courses that will support their personal and career interests. To assist in that selection, there are a number of "specialization pathways" through the curriculum identified by the faculty, for example, in areas such as organizational communication, intercultural communication at home and abroad, and media, multimedia and telecommunications. Alternatively, students with the assistance of their faculty adviser can follow their own specialization pathway through the curriculum.

Graduate Study

Master's Degree

Communication offers a graduate program leading to the MA degree. The program areas of specialization—in management communication, telecommunication, and global communication—reflect the expertise of the graduate faculty in interpersonal, organizational, intercultural, and international communication; telecommunication; and communication policy and planning. Both individual faculty members and the program as a whole work within sociocultural and sociotechnical perspectives. Detailed information may be obtained directly from the department.

Career opportunities for graduates with an MA in communication are numerous and varied. In recent years, for example, graduates have been employed as college-level instructors, as managers of communication companies and training programs, as consultants, and as specialists in social action programs and in research units. Some graduates continue their studies in a professional school or PhD program. Surveys of career characteristics of alumni are made every five years, and copies of the most recent survey are available on request.

Qualified applicants are admitted to the communication program in the fall semester only. Applicants are not required to have a communication degree for admission, but they may be required to make up undergraduate deficiencies. The following information supplements the general requirements and procedures of the Graduate Division.

All applicants to the program must submit directly to the School of Communications a statement of academic goals and how the program's areas of specialization relate to those goals. In addition, the student should arrange for three letters of recommendation to be mailed directly to the school. These letters should be written by persons who are in a position to assess in detail the academic accomplishments of the student. Letters from former professors are preferred. Qualified students whose academic goals are in harmony with the resources of the department will be admitted into the program as classified students on a space-available basis.

Each classified student in the program is assigned a committee chair, who assists the student in planning his or her degree program. During the first year, each student must complete COM 611 and 612. On completing COM 611 and achieving a GPA of 3.0 in all completed course work, the classified regular student is eligible for formal admission to candidacy. At the time of admission to candidacy, the student may change his or her committee chair. With the advice of the committee chair and with Graduate Division approval, a thesis or practicum committee is formed. That committee is responsible for supervising and evaluating the student's thesis or practicum activity. The primary responsibility for supervision is on the committee chair.

Each student must complete a total of 36 credits in the program. These must include the two foundation courses (COM 611 and 612); a pair of area courses (either COM 623 and 624, or 633 and 634, or 643 and 644); two seminars (COM 691 and 692); and, with the approval of the committee chair, 6 credits of COM 700 Thesis or COM 695 Practicum.

The student must, in addition, complete at least 12 credits selected from regular graduate course work in the program (COM 623 to 644, 650, 660, 691, 692, and 699) or, with the approval of the committee chair, up to 6 credits of graduate course work outside communication or approved augmented undergraduate course work (301 to 459). Each student is expected to take at least one 3-credit course or seminar each semester even while completing his or her thesis or practicum—exceptions require approval from the graduate chair prior to registration. For the total program, each student must maintain a minimum GPA of 3.0. In pursuit of their academic goals, many students earn more than the minimum 36 credit hours. The program can be compressed into 15 months or stretched over 60 months; typically, however, students complete the program in 18 to 24 months.

Two degree plans, Plan A (thesis) and Plan B (non-thesis), are normally offered. For Plan A, the student enrolls for at least 6 credits of COM 700 Thesis. In Plan B, the student enrolls for at least 6 credits of COM 695 Practicum. At the comple-

tion of his or her program, each student must take a two-hour oral exam. Both degree plans require at least 36 credits and are equal in difficulty and merit.

Doctoral Degree

Communication is one of four academic programs that cooperate in an interdisciplinary doctoral program in communication and information sciences. See the "Communication and Information Sciences" section that follows for more information.

Communication and Information Sciences

Colleges of Arts and Sciences
Hamilton 22B
2550 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-5815
Fax: (808) 956-5835

Faculty

*R. Knuth, PhD (Chair)—international librarianship
*J. C. Ady, PhD—intercultural and organizational communication
*E. S. Biagioni, PhD—networking protocol design
*T. X. Bui, PhD—electronic commerce, information policy
*H. M. Chen, PhD—information systems
*D. Chin, PhD—artificial intelligence, natural language processing, cognitive science
*W. G. Chismar, PhD—information systems
*J. C. Corbett, PhD—software engineering, program verification
*M. E. Crosby, PhD—human-computer interaction, cognitive science
*E. J. Davidson, PhD—information systems
*D. Davis, PhD—social impact of communication technology and telecom services
*G. M. Fontaine, PhD—intercultural and organizational communication
*W. M. Gersch, PhD—mathematical statistics, time series
*A. Hac, PhD—software systems, telecommunication networks
*V. H. Harada, PhD—library management
*C. Hundhausen, PhD—human-computer interaction
*S. Y. Itoga, PhD—database systems, expert systems, logic programming
*P. Jacso, PhD—CD ROM technology, computer system analysis
*P. M. Johnson, PhD—software engineering, artificial intelligence
*R. Kazman, PhD—software engineering, human-computer interaction
*J. Kim, PhD—communication theory
*E. N. Kunimoto, PhD—intercultural communication
*R. Lamb, PhD—interorganizational technologies, sociotechnical networks
*A. Y. Lew, PhD—systems programming, systems analysis, software engineering
*I. Miyamoto, DrEng—software engineering
*D. M. Nahl, PhD—information services, information literacy
*L. N. Osborne, PhD—information systems
*D. Pager, PhD—compiler theory, theory of computability, artificial intelligence
*R. R. Panko, PhD—information systems
*W. W. Peterson, PhD—programming languages, software engineering
*L. Quiroga, PhD—information retrieval, databases, library systems
*W. E. Remus, PhD—decision sciences
*R. H. Sprague, DBA—information sciences
*J. Stelovsky, DrTechSc—computer hypermedia, human computer interaction
*K. Sugihara, DrEng—algorithms, distributed computing, visual languages
*D. Suthers, PhD—technology for learning
*M. Tehranian, PhD—telecommunication policy and planning
*R. C. Vincent, PhD—communication technology
*D. J. Wedemeyer, PhD—communication policy and planning, telecommunication
*R. G. Worthley, PhD—statistics

* Graduate Faculty

Cooperating Graduate Faculty

D. L. Alden, PhD—marketing communications
*A. R. Arno, PhD—intercultural and organizational communication
D. Ashworth, PhD—learning technology
K. Bridges, PhD—computer cartography
R. W. Brislin, PhD—intercultural communication
R. Doktor, PhD—international business, organizational behavior, strategy
J. M. Gersting, PhD—computer science
J. L. Gersting, PhD—computer science
C. P. Ho, PhD—instructional technology
M. K. Lai, PhD—research methods
M. P. McGranaghan, PhD—computer cartography, geographical information systems
D. Neubauer, PhD—public policy, political economy
O. Shenkar, PhD—international business, organizational behavior
M. S. Snow, PhD—telecommunications economics
J. R. Wills, DBA—technology marketing
S. Zhang, PhD—quantitative research methodology

Affiliate Graduate Faculty

N. Abramson, PhD—electrical engineering
M. F. Jussawalla, PhD—telecommunication and cultural change
S. A. Rahim, PhD—communication and cultural change

Degree Offered: PhD in communication and information sciences

The Academic Program

The Interdisciplinary Doctoral Program in the Communication and Information Sciences (CIS) offers a PhD degree integrating and drawing faculty from the fields of communication, computer science, library and information science, and management information systems. Because of the broad knowledge base required to support this interdisciplinary

approach, the program also draws on such fields as political science, economics, engineering, operations research, and behavioral sciences.

Recipients of the PhD will undertake careers in industry, government, private organizations, and colleges and universities.

Complete details on this program are outlined in a pamphlet, available from the department chair.

Admission Requirements

- Master's degree in business administration, communication, library and information science, information and computer sciences, or a closely related field
- GRE or GMAT scores
- Three letters of recommendation
- Knowledge of computer programming and elementary statistics

Applicants from foreign countries must be academically qualified, proficient in English (TOEFL scores of at least 600 are required), and financially self-sufficient.

Program Requirements

The student will select four areas of emphasis from these seven: communication and information theories, computer software systems, data communications, information storage and retrieval, management information systems, organizational communication, and policy and planning.

Students must pass comprehensive examinations in the four areas of emphasis and complete and defend an original dissertation.

Course Requirements

Regardless of area of emphasis, students are required to complete the following three core courses with a grade of at least a B:

CIS 701 Communication/Information Theories of Society
CIS 702 Communication/Information Technologies
CIS 703 Communication/Information Research Methods

All students are required to be enrolled while in residence in CIS 720 Interdisciplinary Seminar in Communication and Information Sciences.

Courses for the program are to be selected from among the courses listed below and from graduate offerings in related disciplines as directed by the student's advisory committee. Students should refer to the latest study guides for the areas in which they wish to concentrate.

Communication/Information Theories

COM 611 Communication Theories (3)
COM 633 Telecommunications Architectures (3)
COM 650 Communication Policy (3)
COM 660 Communication Planning (3)
SOC 611 Macro-Sociological Theory (3)
SOC 612 Micro-Sociological Theory (3)
SOC 711 Seminar in Sociology of Knowledge (3)
ECON 606 Microeconomic Theory I (3)
ECON 607 Macroeconomic Theory I (3)
POLS 610 Political Theory and Analysis (3)
LIS 715 Seminar in Information Policy and Planning (3)

Communication Policy and Planning

COM 633 Telecommunication Architectures (3)
COM 634 Telecommunication Services (3)
COM 650 Communication Policy (3)
COM 660 Communication Planning (3)
LIS 668 The Information Industry (3)
Track 1: National
LIS 715 Seminar in Information Policy and Planning (3)
PLAN 600 Planning Theory and Practice (3)
POLS 670 Introduction to Public Policy (3)
POLS 671 Public Policy (3)
Track 2: International
COM 643 Intercultural Communication (3)
COM 644 International Communication (3)
LIS 715 Seminar in Information Policy and Planning (3)
POLS 630 International Relations (3)
POLS 635 Topics in International Relations (3)
POLS 640 Comparative Politics (3)
POLS 645 Politics and Development: Regional (3)
POLS 735 Peace/Development Connection (3)

Computer Software Systems

ICS 611 Compiler Theory and Construction (3)
ICS 612 Theory of Operating Systems (3)
ICS 613 Advanced Software Engineering (3)
ICS 621 Analysis of Algorithms (3)
ICS 622 Systems Modeling and Evaluation (3)
ICS 641 Theory of Computation (3)
ICS 661 Artificial Intelligence II (3)
ICS 662 Computer Algebra (3)
ICS 681 Computer Graphics (3)
ICS 691 Topics in Software (3)

Culture and Communication in Organizations

COM 623 Organizational Communication (3)
COM 624 Organizational Communication Training (3)
COM 643 Intercultural Communication (3)
ITM 687M Seminar in Decision Sciences–Communication and Technology (3)
MGT 648 International Business: Environment and Enterprise (3)
MGT 670 International Management and Industrial Relations (3)

Data Communications

ITM 687D Seminar in Decision Sciences–Telecommunications (3)
ITM 687J Seminar in Decision Sciences–Data Communication (3)
ICS 451 Data Networks (3)
ICS 651 Computer Networks (3)
EE 449 Computer Communication Networks (3)
EE 668 Telecommunication Networks (3)

Information Storage and Retrieval

LIS 663 Basic Online/CD-ROM Database Searching (3)
LIS 664 Abstracting and Indexing for Information Services (3)
LIS 667 Advanced Online/CD-ROM Database Searching (3)
LIS 670 Introduction to Information Storage and Retrieval (3)
LIS 674 Database Design and Creation (3)
LIS 676 Expert Systems for Library and Information Environment (3)
ICS 321 Data Storage and Retrieval (3)
ICS 421 Database Systems (3)
ICS 461 Artificial Intelligence I (3)

Management Information Systems

ITM 660 Current Topics in Decision Sciences (3)
ITM 683 Management of Information Systems (3)
ITM 684 Decision Support Systems (3)

Dance

See Theatre and Dance

East Asian Languages and Literatures

College of Languages, Linguistics and Literature
Moore 382
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-8940
Fax: (808) 956-9515
Web: www2.hawaii.edu/eall/

Faculty

*Y. C. Li, PhD(Chair)—Chinese syntax and semantics, language acquisition, comparative dialects, classical Chinese, sociolinguistics, language planning, second language acquisition
*D. E. Ashworth, PhD—Japanese and Asian language pedagogy; telecommunications and language learning; translation pedagogy
*R. L. Cheng, PhD—Mandarin and Taiwanese lexicon, phonology and syntax, comparison of Chinese and Japanese (writing and phonology), computer-assisted research on language contacts
*J. R. Cohn, PhD—Japanese literature, especially comedy and modern fiction; and bibliography
*H. M. Cook, PhD—Japanese linguistics, sociolinguistics, discourse analysis and pragmatics; second language acquisition
S. A. Curry, MA—Japanese language teaching
*J. H. Haig, PhD—Japanese linguistics, syntax, and semantics, functional syntax, linguistic theory
*K. Hijirida, EdD—Japanese language pedagogy; language for special purposes; curriculum design, development and assessment
S. H. Hirate, MA—Japanese language teaching
C. I. Hitosugi, MA—Japanese language teaching
*H. I. Hsieh, PhD—Chinese language and linguistics; Chinese literature and culture; mathematical linguistics; semantics; cognitive grammar
*R. N. Huey, PhD—classical Japanese literature (especially *waka*)
T. Iwai, MA—Japanese language teaching
S. Jiang, MA—Chinese language teaching
*K. Kanno, PhD—Japanese linguistics, syntax, second language acquisition
*Y-H. Kim, PhD—modern Korean women writers; Korean culture, East Asian women writers and society
K. S. Kitsutani, MEd—Japanese language teaching
T. D. Klafehn, MA—Japanese language teaching
K. Kondo, EdD—Japanese language pedagogy; curriculum design, development and assessment; Japanese as a second/heritage language
J. Kwan, MA—Chinese language teaching
M. Lachmann, MA—Japanese language teaching
J. R. Landers, PhD—Chinese language and culture
*D. J. Lee, PhD—Korean language and linguistics, language acquisition
*L. B. Lower, PhD—Japanese language and literature, comparative literature
J-Y. Lu-Chen, PhD—Chinese language teaching, translation and interpretation
K. A. Masunaga, MA—Japanese language teaching
*D. R. McCraw, PhD—Chinese classical literature, especially poetry, particularly *Tang shi*, *Song shi* and *ci*, and *Qing ci*
H. Nagahara, PhD—Japanese linguistics: phonology and syntax/semantics
G. E. Nakahara, PhD—Japanese language teaching
*N. M. Ochner, PhD—modern Japanese literature, comparative literature of Japan and the West
M. Ogasawara, MA—Japanese language teaching
D. T. Ogawa, MA—Japanese language teaching
J. K. Omura, MA—Japanese language teaching
K. J. Ota, PhD—Japanese language teaching
G. E. Ray, MA—Japanese language teaching
*K. A. Reynolds, PhD—Japanese socio-historical linguistics, and sociolinguistics (gender and class)
*L. A. Serafim, PhD—Japonic linguistics: Japanese and Ryukyuan language history and dialectology
K. Shoji, MA—Japanese language teaching
*H. M. Sohn, PhD—Korean language and linguistics, Korean-Japanese comparative syntax, general linguistics
M. Steverson, MA—Japanese language teaching
*M. M. Tahara, PhD—Japanese: Heian poetry and prose, modern literature
Y. Tateyama, MA—Japanese language teaching
*A. H. Thornhill, PhD—medieval Japanese literature and religion
*V. H. Viglielmo, PhD—Japanese: modern literature with emphasis on Meiji-Taisho fiction: modern Japanese philosophy
*G. Vitiello, PhD—traditional Chinese fiction
*A. V. Vovin, PhD—history of the Japanese and Korean languages, comparative Altaic linguistics, the Ainu language
Y. Wada, MA—Japanese language teaching
C-K. P. Woo, MA—Japanese language teaching
*T-C. Yao, PhD—Chinese language pedagogy, computer-assisted language instruction in Chinese

* Graduate Faculty

*D. R. Yoshimi, PhD—Japanese sociolinguistics and discourse analysis, second language acquisition and pedagogy
*M-B. Yue, PhD—modern Chinese literature, literary history and theory, feminism, cultural studies, film theory
S. M. Zeng, PhD—Chinese language teaching, translation and interpretation

Cooperating Graduate Faculty

G. Kasper, PhD—second-language discourse analysis, pragmatics, learning strategies, qualitative research methods

Degrees and Certificates Offered: Certificate in Chinese, Certificate in Japanese, Certificate in Korean, BA in Chinese, BA in Japanese, BA in Korean, MA in East Asian languages and literatures, PhD in East Asian languages and literatures

The Academic Program

The Department of East Asian Languages and Literatures (EALL) is the largest department of its kind in the country and offers a curriculum unparalleled in its breadth, depth, and variety of courses in Chinese (Cantonese, Mandarin, Taiwanese), Japanese, and Korean.

At the undergraduate level, language skill courses are aimed at developing a high level of proficiency in both the spoken and written aspects of the languages. Cultural awareness as well as language proficiency are promoted through extracurricular activities such as student clubs, video/film showings, lectures, and study abroad programs. The department currently offers though the Study Abroad Center programs in Hainan, China and Kobe, Japan. Other courses provide both introductory and advanced coverage of the literatures of East Asia and the analysis and description of the languages themselves. The graduate program is primarily designed to provide students with advanced professional training in language history, structure, pedagogy, and sociolinguistics, as well as literary history and criticism.

While most students enroll in language courses to fulfill the General Education Core requirement for foreign languages, there are many who plan to use Chinese, Japanese, or Korean in research or graduate studies. Those who plan to enter the work force immediately upon completing their undergraduate studies find that their language proficiency opens doors to employment in the local travel industry and other internationally oriented businesses.

Undergraduate Study

BA in Chinese

Requirements

Students must complete a minimum of 34 credit hours, including the following upper division courses:

- CHN 301, 302, 401, and 402
- CHN 451 or 452
- EALL 361 or 362

(List continued in next column.)

- One of CHN 470 or EALL 363B, 363C
- 9 credit hours of approved courses in Chinese language and literature

BA in Japanese

Requirements

Students must complete a minimum of 36 credit hours, including:

- JPN 350, 370, 401, 402, and 407E
- JPN 407B, 407C, or 407D
- EALL 271 and 272
- 12 credit hours in approved courses

BA in Korean

Requirements

Students must complete a minimum of 36 credit hours, including:

- KOR 301, 302, 401, 402, 451, and 452
- EALL 281 and 282
- 12 credit hours in approved courses

Certificate

Certificates in Chinese, Japanese, and Korean are offered to eligible students. A minimum of 15 credit hours from 301 or above in the language of choice must be earned with a minimum GPA of 3.0.

Graduate Study

Complete details on the graduate programs are available from the Department of East Asian Languages and Literatures.

Graduates of the programs have obtained jobs as instructors in private schools, two- and four-year colleges and universities; as translators; and in various capacities in private firms and government service.

The MA and PhD are recognized Western Interstate Commission for Higher Education (WICHE) regional graduate programs. Residents of Alaska, Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming are eligible, upon admission, to enroll at Hawai'i-resident tuition rates. See the "Tuition, Fees, and Financial Aid" section of this *Catalog* for more information on WICHE programs.

The MA degree is offered in the fields of Chinese language, Chinese literature, Japanese language, Japanese literature, Korean language, and Korean literature. The PhD degree is offered with concentrations in the same fields. All applicants for the MA or PhD program must have a BA in the language of their concentration or equivalent preparation and must submit three letters of recommendation and GRE General Test scores; sample scholarly writing in English is required of PhD applicants. Admission to the PhD program also requires evidence of the MA earned with distinction or its equivalent. Normally, all students are required to pass a qualifying exam before advancement to candidacy.

* Graduate Faculty

The MA candidate may select either the Plan A (thesis) or Plan B (non-thesis) program; Plan A must have the approval of the graduate chair.

Master's Degree

Requirements

For Plan A, students must complete a minimum of 30 credit hours, including at least 18 credit hours in the major field and 6 credit hours of thesis research. A minimum of 12 credit hours in the major field must be earned in courses numbered 600 or higher, including a 700-level seminar and excluding 699V.

For Plan B, students must complete a minimum of 30 credit hours, including at least 21 credit hours in the major field. A minimum of 18 credit hours in the major field must be earned in courses numbered 600 or higher, including a 700-level seminar and excluding 699V.

Doctoral Degree

Requirements

PhD candidates are expected to master four fields, at least one of which will be outside the students' areas of specialization. They must pass a comprehensive examination covering the four fields, complete an original dissertation, and pass a final oral examination in defense of the dissertation. Apart from having a command of English and their concentration language, candidates must have knowledge of a second East Asian language equivalent to two years of study; in some cases a third East Asian language or an additional European language may be required.

Economics

College of Social Sciences
Social Sciences 542
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8496
Fax: (808) 956-4347
E-mail: econ@hawaii.edu
Web: www.soc.hawaii.edu/css/econ

Faculty

*A. Mason, PhD (Chair)—population economics, macroeconomics
*C. Bonham, PhD—applied macroeconomics, monetary theory
*K. S. Cheong, PhD—public finance, corporate finance, industrial organization, income distribution
*B. Gangnes, PhD—international macroeconomic modeling, U.S.-Japan trade relations
*D. E. Konan, PhD—international trade
*S. La Croix, PhD—industrial organization, law and economics, economic history
*C. Lee, PhD—international economics, development economics
*S. H. Lee, PhD—econometrics, labor economics
*J. Mak, PhD—economics of tourism, health economics, economic history
*J. Moncur, PhD—water resource economics, economic statistics, microeconomics
*S. Naya, PhD (on leave)—international economics, development economics
*J. Roumasset, PhD—development economics, public resource allocation, resource economics
*J. Russo, PhD—health economics, applied microeconomics
*K. V. Sherstyuk, PhD—experimental economics, game theory
*M. Snow, PhD—applied microeconomics, mathematical economics, telecommunications economics
*Y. Yeh, PhD—international economics, macroeconomics

Cooperating Graduate Faculty

P. Garrod, PhD—marketing and production economics
E. Im, PhD—econometrics, statistical theory
P. S. Leung, PhD—production economics, quantitative methods

Affiliate Graduate Faculty

R. Blair, PhD—industrial organization antitrust economics
L. Cho, PhD—population economics
L. Endress, PhD—growth theory
F. Fesharaki, PhD—energy economics
M. Jussawalla, PhD—telecommunication economics

Affiliate Graduate Faculty

D. Ernst, Dr rer pol—science and technology in Asia
M. F. Montes, PhD—international monetary policy
S. G. Rhee, PhD—Asia-Pacific financial markets

Degrees Offered: BA in economics, MA in economics, PhD in economics

The Academic Program

Economics (ECON) is the social science that deals with the allocation and use of human and material resources under conditions of scarcity and uncertainty. It examines this subject matter at the micro level (the consumer, the household, the firm, and the industry) and the macro level (the region, the labor force, the government, the nation, and the world). Courses in these topics are complemented by instruction in the statistical and mathematical tools necessary for modeling, data collection and analysis, and hypothesis testing. Students of economics will learn a body of knowledge that is essential to understanding many aspects of the modern world and contemporary public policy issues, including such vital matters as international trade, economic development, the environment, the budget deficit, Hawai'i's economic challenges, deregulation, business cycles, and consumer behavior. A BA in economics is an excellent background for demanding analytical and policy positions in the public and private sectors; it is also a highly regarded preparation for graduate work in law, business, and political science, as well as economics.

Economics at the University of Hawai'i at Mānoa is consciously directed toward policy challenges in the Asia Pacific region, which comprises the nations of the Pacific rim and the Pacific Islands, as well as Hawai'i. Many of the department's undergraduate and graduate students come from this part of

* Graduate Faculty

the world. Geographic and subject matter interests of students and faculty contribute to a regional specialization in accord with the University of Hawai'i's overall mission. Theses and dissertations are thus well grounded in recent theory and methodology but deal insightfully with crucial policy issues of the region.

Affiliation

The UH Mānoa Department of Economics participates in academic and educational exchanges with the Research Institute of Economics and Business Administration of Kobe University, Japan, and Thammasat University, Bangkok, Thailand.

Advising

Advising is mandatory for all graduate and undergraduate economics majors. Contact the department office for specific information.

Undergraduate Study

Bachelor's Degree

The bachelor of arts in economics provides students with an intensive knowledge of the theory and practice of economics, with an emphasis on the analysis of contemporary policy challenges of Hawai'i and the United States in the Asia Pacific region. Majors study a wide range of current economic policy issues and learn a powerful framework for analyzing these issues. They also develop reasoning and communication skills that are useful across disciplines. As a result, the BA program has been successful in preparing graduates for advanced study in economics, business, law, and other social sciences, as well as challenging careers in business management, technical analysis, policy evaluation, and education.

Requirements

Students must complete 24 credit hours of approved upper division courses, including ECON 300, 301, and either 321 or 424

Minor

Requirements

Students must complete 15 credit hours of approved upper division courses, including ECON 300 and 301.

Graduate Study

The department offers a graduate program leading to the MA and PhD degrees. Graduate alumni are successful economists, entrepreneurs, and government policy experts in a variety of settings and institutions, especially in Hawai'i, Asia, and the Pacific region. Faculty research interests facilitate graduate field specializations with regional emphasis on Hawai'i, Asia, and the Pacific. Student and faculty research focuses on analyses of policy issues of importance to countries in Asia and the Pacific.

The MA program prepares students for policy analysis in government, international agencies, and the private sector, emphasizing application of theory to economic decision-making. The MA is not a prerequisite for the PhD. The PhD program provides state-of-the-art training for high level academic, government, and private-sector careers.

The department maintains strong links with the East-West Center, particularly with the center's Programs on Population, International Economics and Politics, Environment, and Resources: Energy and Minerals. Relationships also exist with various country centers located in the School of Hawaiian, Asian, and Pacific Studies and with other programs in the College of Social Sciences. In conjunction with the College of Business Administration, the department also offers a program leading to a PhD in economics and business.

Entering graduate students are expected to have a bachelor's degree, not necessarily in economics, and to have completed courses in intermediate micro- and macroeconomic theory, elementary statistics, and mathematics through calculus. Students with deficiencies must make them up prior to entering the program or within the first year of study.

TOEFL scores (for all applicants from foreign countries where English is not the primary means of communication) and two letters of recommendation must be submitted by applicants. Students applying for the graduate program must submit official GRE General Test scores.

Master's Degree

To receive an MA, students must be in residence for at least two semesters, and all work must be completed within seven years of admission.

Requirements

MA students must earn a minimum of 30 credit hours, of which 21 or more must be in graduate-level courses (600-level and above). The credit-hour requirements may be met through some combination of the following:

- Required four-course core (ECON 606, 607, 627, 628)
- Area of concentration courses consisting of at least two 600-level courses selected in consultation with the Graduate Chair
- Required individual research project (ECON 732)

Graduate credit will not be granted for 300-level courses. Students who complete the PhD core may substitute a pass on any PhD qualifying or field exam for the individual research project requirement for a master's degree.

Doctoral Degree

A PhD student must be in residence for at least three semesters and complete all requirements within seven years of admission to the doctoral program.

Requirements

Seven core courses (ECON 606, 607, 608, 609, 627, 628, and 629) must each be completed with a grade of B or better by doctoral students. After completing the core requirements, students must complete six additional field courses in economics, two of which must be completed in a major field and two

in a minor. Fields offered by the department are as follows:
1. Economic Development (ECON 610 and 611)
2. Health and Population Economics (ECON 672 and 674)
3. Labor Economics (ECON 670 and 671)
4. International Economics (ECON 660 and 662)
5. Macroeconomic Policy and Modeling (ECON 640 and 641)
6. Public Economics (ECON 650 and 651)
7. Resource and Environmental Economics (ECON 637 and 638)

PhD students must receive passing grades on the two qualifying exams in micro- and macroeconomic theory and on a qualifying exam in their major field. Students failing a qualifying examination may retake it only once. With prior approval of the graduate committee, the minor field can be outside of economics.

After passing the three qualifying examinations, PhD candidates will complete a research project leading to a dissertation proposal. This will be done under the supervision of the graduate chair and one or more faculty members approved by the graduate chair. Concurrently, the student must enroll in one or more of the workshops offered each semester (ECON 730). With advance approval of the graduate chair, field research over a period of one semester or more may be used in lieu of ECON 730 to satisfy the research project requirement.

The comprehensive examination—of which the written qualifying examinations are a part—will include a broad probing of the candidate's general economic knowledge. The oral part of the PhD comprehensive examination will be administered jointly with the defense of the dissertation proposal, before a dissertation committee chosen by the student and approved by the graduate chair and the Graduate Division of the University. A student who fails the comprehensive examination may repeat it once. A student who fails a second time is dropped from the program.

The final examination, which is oral, covers the candidate's defense of the final dissertation draft. It is administered orally and is open to the public. Candidates failing the final examination may be allowed to repeat it once upon petition approved by the graduate faculty concerned and the dean of the Graduate Division. Those failing it twice are dropped from the program. The final dissertation must also conform to University standards in content and format.

English

College of Languages, Linguistics and Literature
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Faculty

*N. G. Altizer, MA—creative writing, poetics, feminist criticism
*F. R. Ardolino, PhD—Renaissance literature, drama
*C. Bacchilega, PhD—folklore, 20th-century fiction, feminist and other literary theory, translation studies, narratology
*D. Baker, PhD—early modern literature and history, post-colonial studies
*M. Blair, MA—creative writing
*S. Canham, PhD—Victorian and juvenile literature, the novel
*J. Caron, PhD—19th-century American literature, Mark Twain, comic art and literature, popular culture
*J. Carroll, PhD—rhetoric and composition, American novel, fiction
*W. G. Creed, PhD—the English novel, literary criticism and theory, literature and science, computers and writing
*S. Curry, PhD—American literature, children's literature, comparative literature, critical theory
*P. Damon, MFA—creative writing
*L. Despain, PhD—theory and practice of teaching composition, American literature, 20th-century fiction
*A. Edelstein, PhD—American literature, the novel, literary theory
*K. Falvey, PhD—medieval language and literature, early Italian religious drama
R. Fand, PhD—composition and literature instruction
*W. Foltz, PhD—Victorian poetry, classical literature, biography
*C. Franklin, PhD—contemporary women's literature, ethnic American literatures, feminist theory
K. Fredericks, MA—composition and literature instruction
*R. Friederich, PhD—Renaissance, German, and comparative literature
*M. Fuchs, PhD—modern American literature, autobiography, women writers
*C. Fujikane, PhD—literatures of Hawai'i, Asian American literatures, feminist/nationalist critical theory and practice
*S. Goldsberry, PhD—creative writing
M. Hara, MA—composition and literature instruction
*M. Heberle, PhD—Renaissance literature, Spenser
L. Hershinow, MA—composition and literature instruction
*T. Hilgers, PhD—composition, psychology and literature
*C. Howes, PhD—19th-century literature, literary theory, research methods
*R. Hsu, PhD—modernism, ethnic literature, Asian American literature, feminist criticism
*R. Hughes, PhD—late 19th- and 20th-century American literature, fiction

* Graduate Faculty

*B. Ige, PhD—literatures of the United States; ethnic, feminist, and cultural studies; literary theory
*J. Kellogg, PhD—medieval English and French literature, comparative literature, social backgrounds, medieval women writers
S. Kosanke, MA—composition and literature instruction
*R. Lessa, PhD—English romanticism, English poetry, pastoralism
*J. Lew, PhD—late 18th-century literature, English and European romanticism, Gothic
*L. Lyons, PhD—post-colonial literatures and theory, Irish literature, cultural studies
*P. Lyons, PhD—American literatures, literary theory
*I. MacMillan, MFA—creative writing
*G. Man, PhD—19th-century British literature, narrative, film
*J. A. Marsella, PhD—composition studies, writing across the curriculum, academic literacy
K. McAndrews, PhD—composition and literature instruction
*R. W. McHenry Jr., PhD—Restoration and 18th-century literature, Shakespeare, literature and art
*B. Menikoff, PhD—19th- and 20th-century literature, textual criticism
L. Middleton, PhD—composition and literature instruction
*R. Morales, MA—creative writing, Pacific literature, American ethnic literature
*J. Morse, PhD—American literature, literary history
N. Mower, MA—composition and literature instruction
R. Nettell, PhD—composition and literature instruction
*P. Nicholson, PhD—old English, Chaucer, medieval literature, English language
*J. H. O'Mealy, PhD—Victorian literature, literature and society, modern drama
*R. Onopa, PhD—creative writing, science fiction
*J. Peters, PhD—modern British and American literature, narratology, the British novel (1700-1945)
*K. Phillips, PhD—20th-century comparative literature, Biblical and mythical backgrounds
*A. Rayson, PhD—African American literature, ethnic literature, professional editing, autobiography
*J. Rieder, PhD—English romanticism, literary theory
*T. Sammons, PhD—Renaissance and 17th-century literature, Milton, science fiction
*S. Schultz, PhD—20th-century poetry in English, American literature, creative writing
*R. Shapard, PhD—creative writing, contemporary American fiction
*G. Sibley, PhD—British and American novel, Victorian literature, satire
*C. Sinavaiana-Gabbard, PhD—Pacific literature and drama, ethnic literatures, folklore, feminist criticism
*J. Spahr, PhD—poetic theory and criticism
*F. Stewart, MA—creative writing, modern and contemporary poetry and poetics, American nature writing
E. Suyama, MA—composition and literature instruction
*B. Tobin, PhD—18th-century cultural studies
*C. Ward, PhD—critical theory, post-colonial literature, popular culture, oral and performance theory, the novel
*V. Wayne, PhD—Shakespeare, feminist criticism, Renaissance literature, textual editing

* Graduate Faculty

*R. Whitlock, PhD—composition, creative writing
*R. Wilson, PhD—American literature, literary criticism, creative writing
*J. Zuern, PhD—computer-mediated communication, comparative literature

Degrees Offered: BA in English, MA in English, PhD in English

The Academic Program

The UH Mānoa Department of English (ENG) instructs students in reading as a form of critical thinking and in writing as an intellectual and creative endeavor so that students may achieve advanced forms of literacy and fully partake of the civic and cultural opportunities within society. The department realizes these goals by the rigorous study of composition, creative writing, and literatures in English through a variety of approaches, including a multicultural and Asia Pacific perspective that addresses the unique diversity of cultures in the Hawai'i community. English department faculty members not only are responsible for this instruction but also contribute to the creation of knowledge in these fields through research and writing.

The goals of the English undergraduate program are (a) to offer a comprehensive array of course choices as part of a challenging program in English literature, American literature, and world literature, one that is aware of our role and responsibility in Hawai'i and in the Pacific; (b) to develop and broaden the study of the English and American language itself; and (c) to strengthen the student's writing interests and abilities through a large number of courses in creative writing, expository writing, and editing.

The graduate program enriches students' knowledge of literature, composition, and cultural studies. MA students are asked to take approximately half of their course work in a specific concentration so that they begin to develop an area of expertise while broadening their understanding of other areas of study. The MA thesis or final project at the end of the program gives them the opportunity to do extended research and writing on a topic of their own choosing.

The doctoral program prepares students to become professionals in the field. Required courses are not its focus; rather, it offers students considerable latitude in course selection and requires disciplined, independent work on examinations and the dissertation. Candidates completing the program should have the skills and experience to function as critics, scholars, and writers in an area associated with the profession of English.

Undergraduate Study

Bachelor's Degree

The Department of English offers the BA degree with informal emphases in American, British, and Pacific literatures; composition and rhetoric; and creative writing.

Requirements

Students must complete 33 credit hours of upper-division courses, including:

Level Requirements

- at the 300 level:
  - A. ENG 320, Introduction to English Studies; this course is foundational and should be taken in the student's first or second semester of upper-division English work; 3 credits
  - B. 5 courses in addition to ENG 320; 15 credits. Several of these courses should be in areas prerequisite to/preparatory for specific courses at the 400 level.
- at the 400 level (ENG 320 and two 300-level courses are prerequisite to "*Studies*" courses):
  - C. Single Author (440 Alpha Single Author; 442 Chaucer; 445 Shakespeare; or 447 Milton); 3 credits.
  - D. 2 additional elective courses; 6 credits.
- at the 300 or 400 level:
  - E. 2 courses; 6 credits

Total: 33 credits

Breadth Requirements

Breadth of Field: the five 300-level courses in addition to Introduction to English Studies must come from at least three different categories:

- Composition/Language/Rhetoric (300-309)
- Creative Writing (310-319)
- Literary History (321-59)
- Genre (360-69)
- Literature and Culture (370-89)

Historical Breadth: of the ten courses in addition to Introduction to English Studies, one must be pre-1700, one 1700-1900, and one after 1900.

Non-English Department Course

With the consent of the student's adviser or the Director of Undergraduate Programs, one appropriate three-credit upper-division course from outside English may be counted as a major elective.

Minor

English offers a fifteen-credit minor for students who wish to emphasize a specific aspect of English studies without completing the actual major. Beyond the two required courses, the minor may focus on literary studies, creative writing, or rhetoric and composition. Or the student may take electives from all three of these areas.

ENG 100 and two ENG 250-257 courses are prerequisite for Arts and Sciences students; the second ENG 250-257 may be taken concurrently with 300-level ENG courses. Students enrolled in colleges other than Arts and Sciences may elect ENG 250-257 courses (as per current policy). All Mānoa courses applied to the English minor will come from the Department of English or cross-listed courses. Appropriate upper-division transfer credits may apply toward the minor.

The minor consists of:

1. ENG 320, Introduction to English Studies. This course is foundational and should be taken in the student's first or second semester of upper-division English work.
2. Single author course (440 Alpha Single Author; 442 Chaucer; 445 Shakespeare; or 447 Milton)
3. 300-level ENG elective
4. 400-level ENG elective
5. 300 or 400-level ENG elective

Advising is mandatory; new majors and minors will be assigned an adviser when they meet with the Director of Undergraduate Programs (Kuykendall 429; (808) 956-9137 for appointments) for their initial intake/informational meeting.

Graduate Study

The Department offers the MA in English with four concentrations: literary studies in English, composition and rhetoric, creative writing, and cultural studies in Asia/Pacific. It offers the PhD in these and other areas, for the doctoral program is sufficiently flexible to allow students to develop individualized courses of study. Students applying for the MA are expected to have acquired between 24 and 30 upper division undergraduate credit hours in English or closely related subjects. PhD applicants normally will have completed the MA in English, although exceptionally well-qualified students may petition to transfer into the PhD program after completing 18 credit hours in the MA program in English. In addition to the application and transcripts required by the Graduate Division, all applicants must submit directly to the department three letters of recommendation and the GRE General Test scores. The advanced literature section of the GRE is required of PhD applicants. PhD applicants must also submit a comprehensive statement of professional goals and objectives and a representative sample of their writing (scholarly paper or MA thesis); those interested in a dissertation with a creative emphasis must also submit examples of their creative work. Residents of O'ahu applying to the PhD program may arrange for an interview with the graduate director. The completed application should be sent to the Graduate Division by February 1 for the PhD program and March 1 for the MA program, but the GPC may consider, during the fall semester, unusually strong applications to the PhD program from students currently enrolled in other UHM graduate programs at the PhD level. Complete information on the graduate program is provided in a graduate student manual, available on request from the department.

Courses for the MA and PhD are to be selected from the list of English (ENG) courses, although advanced courses in other disciplines may be substituted with the prior approval of the graduate chair. The consent of the instructor is required for ENG 691, 699, 700, and 800; the consent of the graduate chair is required for all graduate courses. The following courses may be repeated for credit, since content differs from semester to semester: ENG 611, 633, 660, 675, 691, 699, 735, 737, 740, 745, 760, 775, 780, and 785.

Master's Degree

Graduates of the MA program in English have taught in secondary schools, junior and community colleges, four-year colleges, and universities. Some have pursued doctoral work; others have combined their work in English with another professional field (e.g., business, law, library studies). Still others have found employment in writing, editing, or research-related fields.

MA candidates are required to select a concentration by the end of their first semester in the program. Plan A (thesis) applies only to those admitted into the concentration in creative writing. Plan B (non-thesis) applies to those who have selected the concentrations in literary studies in English, composition and rhetoric, or cultural studies in Asia/Pacific.

Plan A (Thesis) Requirements

- Is applicable only to those students admitted to the concentration in creative writing. Students should submit a writing sample during the admission process or apply to the chair of creative writing for admission to the concentration during their first semester in the program
- 27 credit hours of course work, including 21 credit hours of courses numbered 600 and above
- 6 additional credit hours of work on the MA thesis
- ENG 620—taken during the first semester if possible
- ENG 633D—taken during the second semester if possible
- Final oral examination on the thesis
- A minimum of 12 credit hours of course work in creative writing and 12 credit hours of course work outside of that concentration. Courses listed in different concentrations may be applied to either area.
- One graduate course in a subject area before 1900. In exceptional cases, the graduate chair may approve the use of a 400-level course to meet this requirement.
- One course in the English language (ENG 401, 402, 403, 640, or equivalent)—taken prior to entering the program. Students may meet this requirement within the program by taking an undergraduate course in the English language in addition to the total of 33 credit hours required for the MA degree or by taking an appropriate graduate course, such as 640, which will count towards the MA degree but may not also be used to fulfill the pre-1900 course requirement.
- Reading knowledge of one foreign language

Plan B (Non-thesis) Requirements

- 33 credit hours of course work, including 27 credit hours in courses numbered 600 and above. Applies to all students except those in creative writing
- ENG 620—taken during the first semester if possible
- ENG 633B, C or E—a course in theories and methods associated with the concentration selected by the student, taken during the second semester if possible
- ENG 691—a minimum of 3 credit hours and a maximum of 6 credit hours required for work on the MA final project
- Final oral examination on the MA project
- One course in the English language (ENG 401, 402, 403, 640, or equivalent)—taken prior to entering the program. Students may meet this requirement within the program by taking an undergraduate course in the English language in addition to the total of 33 credit hours required for the MA degree or by taking an appropriate graduate course, such as 640, which will count towards the MA degree but may not also be used to fulfill the pre-1700 or pre-1900 course requirement.
- Reading knowledge of one foreign language
- Requirements for those in literary studies: between 12 and 24 credit hours of course work in the student's concentration, including ENG 633B; one graduate course in a subject area before 1700
- Requirements for those in composition and rhetoric: ENG 633C, 680, 740 and 760; a minimum of 12 credit hours of course work outside the concentration; one graduate course in a subject area before 1900. Courses listed in different concentrations may be applied to either area.
- Requirements for those in cultural studies in Asia/Pacific: a minimum of 12 credit hours of course work in the concentration, including ENG 633E and 3 credit hours in Hawai'i's local literature, Asian American literature, or Pacific literature; a minimum of 12 credit hours of course work outside the concentration; one graduate course in a subject area before 1900. Courses listed in different concentrations may be applied to either area. Students in cultural studies will be allowed to meet 3 credit hours of work in their concentration with a course outside of the English department with permission of their concentration adviser.

Doctoral Degree

Since the PhD program offers diverse courses and the opportunity to specialize in a range of different areas, graduates may pursue careers from among several professions, including teaching, research, and writing.

Requirements

PhD candidates must fulfill the residency requirement and are required to take six graduate-level courses in the Department of English; two courses, normally at the 400 level or above, in a field outside of English but related to the student's research interests; and ENG 730 (taken after passing the area examination). They must pass three area examinations and a comprehensive examination and demonstrate competence in two languages other than English (one of which, if appropriate to the candidate's research, may be a computer language). Candidates will be required to complete an original scholarly or creative dissertation representing a substantial contribution to the discipline of English, suitable for publication, and a final oral examination on the dissertation.

Environmental Studies

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Faculty

J. N. Miller, PhD (Environmental Studies Coordinator/Adviser)—environmental assessment, environmental oceanography, environmental studies

Affiliate Faculty

D. C. Cox, PhD—Emeritus Geophysicist, hydro-geology, tsunamis, earthquakes

S. Conant, PhD—Professor of Zoology, ornithology, ecology, behavior, conservation biology

G. D. Curtis, BS—Affiliate Professor and Lecturer of Natural Sciences at UH Hilo, instrumentation, oceanography, tsunami research

E. P. Dashiell, MA—Environmental Planning Consultant, environmental and facilities planner, environmental impact statements, environmental investigations

D. Drigot, PhD—natural resource management

P. Ekern, PhD—Emeritus Professor of Natural Resources and Environmental Management, soil management, agricultural meteorology

M. C. Jarman, JD, LLM—Associate Professor of Law, environmental law, ocean law, legal writing

E. A. Kay, PhD—Emeritus Professor of Zoology, systematics, biogeography, malacology

K. E. Kim, PhD—Professor of Urban and Regional Planning, planning theory, planning methods, infrastructure planning, alternative tourism planning

G. K. Lowry, PhD—Professor of Urban and Regional Planning, alternative dispute resolution, coastal management, planning theory, community-level planning

F. T. Mackenzie, PhD—Professor of Oceanography, geochemistry; biogeochemical cycling, global environmental change

J. Maragos, PhD—U.S. Fish and Wildlife Service, Pacific Island Ecoregion, ecology of coral reefs

J. Morrow, PhD—Environmental Management Consultant, air quality

P. J. Rappa, MA—Associate Extension Agent in Sea Grant College Program, environmental assessment, coastal zone management

M. A. Ridgley, PhD—Associate Professor of Geography, water resources, urbanization and environmental quality, human-environment system modeling

H. Takemoto, MS—U.S. Army Corps of Engineers, environmental chemistry, hazardous waste management

R. Wilkens, PhD—Associate Researcher in Hawai'i Institute of Geophysics and Planetology, rock and sediment properties, bore-hole research

D. W. Woodcock, PhD—Associate Professor of Geography, climatology, paleobiogeography

Degree and Certificate Offered: BA in liberal studies (major equivalent in environmental studies), Certificate in Environmental Studies

The Academic Program

Environmental studies is an individually designed, interdisciplinary program established in 1975 and coordinated by the Environmental Center. Students wishing to earn a BA degree with a major equivalent in environmental studies may do so under the Liberal Studies Program. The program encourages a great deal of self direction to accommodate the student's individual goals and interests.

Environmental studies students may focus their curriculum on either the social or natural/physical sciences and find employment in both the public and private sectors as environmental resource managers, environmental specialists, hazardous waste managers, or any number of related fields. Others pursue graduate studies in environmental sciences, law, chemistry, biology, public health, planning, geography, resource management, etc. A unique feature of the program is the ability to undertake an internship with a local agency or organization chosen by the student. In this internship (IS 489), students design and carry out an environmental research project complete with proposal, progress and final reports, and formal oral presentation to the internship sponsors. During the past 14 years, the EVS program has enjoyed the consistent cooperation and enthusiasm of more than 40 federal, state, and county agencies and departments and many private organizations as sponsors of EVS students.

Undergraduate Study

Bachelor's Degree

The equivalent of an undergraduate major in environmental studies is available in the BA in liberal studies program. For information, contact the Environmental Center or Liberal Studies Program. Interested students should refer to the "Liberal Studies" section within the Colleges of Arts and Sciences.

Requirements

- Introductory courses:
  - BIOL 101/101L or BIOL 171/171L
  - BIOL 124/124L
  - CHEM 151/151L or 161/161L or 171/171L
  - ECON 120 or 130
- Major courses: Students must complete a minimum of 36 credit hours, including:
  - BIOL 310
  - IS 489
  - BOT 351/351L or 454 or ZOOL 200/200L
  - OCN 320

(List continued in next column.)

- GEOG 301
- 20 to 24 credit hours in courses specific to the student's area of environmental studies specialization

Students must maintain a 2.5 GPA in the major course work.

Certificate in Environmental Studies

A Certificate in Environmental Studies signifies that a student has completed substantial environmental course work in addition to the requirements of his or her regular major. Certificate candidates are required to submit a proposal and complete 15 credit hours of course work, including two required courses and three electives from an approved list of courses. The required courses are BIOL 310 and IS 489. Electives for social science or humanities majors are two courses in the natural sciences and one from the social sciences. Natural science majors must select two courses from the social sciences and one from the natural sciences.

- Electives for the natural science courses include the following:
  - BIOL 265/265L, 360, 410, 490
  - BOT 350, 351/351L, 450, 453, 454, 455
  - GEOG 300, 301, 305, 309, 401, 405, 410, 412
  - GG 454, 455
  - OCN 320, 330, 331
  - OEST 310
  - ZOOL 439/439L, 450, 485
- Electives for the social science courses include the following:
  - ARCH 341
  - AREC 432, 456
  - AMST 320, 420
  - ANTH 303, 415, 435
  - ECON 358, 491
  - GEOG 326, 328, 330, 335, 380, 415
  - OEST 261, 480, 481
  - PH 415
  - PLAN 310
  - POLS 335G, 346E
  - SOC 412

For information, contact the Environmental Center.

Ethnic Studies

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Faculty

I. G. Aoudé, PhD (Chair)—Hawai'i political economy, Middle East politics, social movements in Hawai'i and the South Pacific

D. T. Alegado, PhD—Filipino American experience in the United States/Hawai'i, international labor migration

M. Kelly, MA—land tenure and use history in Hawai'i, modern Polynesia, contemporary issues in the Pacific Islands

N. Kent, PhD—political economy in Hawai'i and the Pacific, American ethnic relations

D. McGregor, PhD—Hawaiian history, South Pacific social movements

G. Y. Mark, Doctorate—Chinese in America, criminal justice

J. Y. Okamura, PhD—Japanese in Hawai'i and the United States

K. Takara, PhD—African American experience

Degree and Certificate Offered: BA in ethnic studies, Certificate in Ethnic Studies

The Academic Program

The Department of Ethnic Studies (ES) is an interdisciplinary program with emphasis on undergraduate education. Initiated in 1970, ethnic studies combines traditional and contemporary methodologies with new perspectives on issues of race, ethnicity, and class. The focus is Hawai'i with its rich legacy of multiethnic heritages, but the research, teaching, and service components also involve the United States as a whole and comparative studies of societies around the globe.

Ethnic studies provides introductory and advanced courses on theories and practices of ethnicity, race, and class. The program also offers courses on the history and experiences of specific groups, including African Americans and Native Americans. Among groups in Hawai'i, Caucasians, Chinese, Filipinos, Hawaiians, Japanese, and Koreans are subjects of separate courses. There are also courses dealing with critical topics such as ethnic identity, land tenure, social movements, and labor history.

Students may earn a BA or the Certificate in Ethnic Studies. Graduates have gone on to successful work in public service, social service, business, law, labor organization, education, and other fields that require sensitivity to people and their backgrounds.

Undergraduate Study

Bachelor's Degree

Requirements

Students must complete 36 credit hours, including:

- ES 101 and 380
- 12 credit hours on the history and social dynamics of ethnic groups from ES 221, 305, 306, 330, 331, 332, 333, 335, and 338
- 12 credit hours on the history, theories, and problems of ethnic groups and ethnicity in the framework of social, economic, and political change from ES 301, 310, 318, 320, 340, 348, 350, 360, 365, 370, 381, 390, 392, 399, 410, 420, 430, 455, 492, 493, 495
- 6 credit hours of related courses approved by a department adviser

Geography

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E-mail: uhmgeog@hawaii.edu
Web: www2.soc.hawaii.edu/css/dept/geog

Faculty

*M. Chapman, PhD (Chair)—population mobility, field methods, Melanesia
*S. D. Chang, PhD—China, urban development
*G. A. Fuller, PhD—population (fertility, policy aspects), geography of prophylaxis (fertility control, population and political instability)
*T. W. Giambelluca, PhD—climatology, hydrology
*J. Goss, PhD—urbanization, built environment, social theory, Southeast Asia
*N. D. Lewis, PhD—geography of health, human ecology, Pacific
*M. G. McDonald, PhD—agricultural change, social theory, political geography, Japan
*M. McGranaghan, PhD—computer cartography, geographic information systems
*B. J. Murton, PhD—cultural and historical geography, tropical agrarian systems, South Asia
*M. A. Ridgley, PhD—water resources, urbanization and environmental quality, human-environment system modeling, Latin America
*K. Suryanata, PhD—political ecology, agricultural geography, natural resource management, Third World
*R. A. Sutherland, PhD—geomorphology, soil erosion, water quality
*L. Wester, PhD—plant geography, biogeography of islands, human-plant relationships
*E. A. Wingert, PhD—cartography, remote sensing
*D. Woodcock, PhD—climatology, paleobiogeography

Cooperating Graduate Faculty

K. W. Bridges, PhD—computer cartography
P. Jokiel, PhD—coral reefs
J. O. Juvik, PhD—climatology, biogeography, resource management, humid tropics
J. Liu, PhD—tourism, regional development
M. D. Merlin, PhD—biogeography, natural history of Hawai'i

Affiliate Graduate Faculty

J. Fox, PhD—social forestry
C. J. Johnson, PhD—mineral resources and policies
J. Maragos, PhD—coastal and marine resources
J. R. Morgan, PhD—marine geography
T. A. Siddiqi, PhD—energy technology, environmental policy

Degrees Offered: BA in geography, MA in geography, PhD in geography

* Graduate Faculty

The Academic Program

Geography (GEOG) provides a broad perspective on people as inhabitants and transformers of the face of the Earth. It explores the complexity of the cultures, economies, histories, and ecologies that lie behind places on a map—places that make up the world we live in and pass on to our children. Three themes (the operation of interlocking systems of the natural environment; the relationship between nature and society; the relationship between location and society) focus upon challenges in the contemporary world such as global environmental change and its implications for human existence; resource management and regional development in the Third World; regional conflict fed by long standing economic, religious, or territorial differences; the making of resource and location decisions; and the display and management of spatial information. The department is uniquely placed to examine these issues in the Asia Pacific region. Hawai'i's historical, cultural, economic, social, and environmental context provides a fascinating setting for learning and research and can serve as a springboard into the wider region.

Students with a geography degree have gained both a holistic understanding of the world and a specific set of concepts and methodologies that can be applied to a wide range of career opportunities dealing with environmental and resources issues, location and resource decision-making, planning and policy questions, and the display of information on maps and through geographic information systems in all levels of government, private firms, nonprofit organizations, and international agencies.

Undergraduate Study

Bachelor's Degree

Requirements

Students must complete 37 credit hours including:

- GEOG 101/101L, 151, 375, 380, and 390
- One upper division course in each subdiscipline:
  - human geography (GEOG 305, 312, 314, 321, 324, 325, 326, 328, 330, 335, 336, 385, 409, 410, 411, 412, 415, 420, 421, 425, 435, 445, 455)
  - physical geography (GEOG 300, 301, 303, 309, 400, 401, 402, 403, 404, 405, 409, 410, 411, 412, 420)
  - Hawaiian, Asian and Pacific regional problems (GEOG 340, 352, 353, 355, 356, 365, 366, 368, 453, 468)
  - cartography, remote sensing, and geographic information systems (GEOG 370, 375, 387, 470, 472, 475, 476, 480, 487, 488)
- Three additional upper division courses concentrated in one of four subdisciplines listed above

Individual programs are designed in consultation with the undergraduate adviser.

Minor

Requirements

The minor in geography requires 15 credits of upper division course work in geography, which should include at least one course in three of four areas: human geography; physical geography; Hawaiian, Asian and Pacific regional problems; and cartography, remote sensing, and geographic information systems.

Graduate Study

The department offers programs of graduate study and research leading to the MA and PhD degrees. Faculty interests and supporting strengths of the University provide advantages for study of the following general topics: (a) environmental studies and policies; (b) resource systems; (c) population, urbanization, and regional development; (d) cartography, remote sensing, and geographic information systems; and (e) Pacific and Asian regional problems.

Applicants are expected to have a broad-based undergraduate education encompassing basic courses in the physical sciences, social sciences, and humanities. They should have a firm grasp of the fundamentals of physical and human geography and of basic cartographic and quantitative techniques. Intended candidates for the MA or PhD need not have an undergraduate major in geography; students from related fields are welcome, but any subject-area weakness must be remedied by course work.

Holders of graduate degrees in geography are employed in research and administrative positions in county, state, federal, and international agencies; research positions in private business, especially consulting firms; and teaching positions in secondary schools, community colleges, colleges, and universities.

Master's Degree

Applicants for admission to the MA program in geography must provide two transcripts, GRE scores (General Test only), completed application forms (available from the department, the Graduate Division, and the Web), and three letters of reference.

Requirements

The department offers a Plan A (thesis) program. In consultation with an advisory committee, the candidate plans a coherent program of study drawn from departmental offerings and pertinent courses from other University departments and programs. Each MA student must complete a minimum 31-credit program, including:

- 7 credit hours of core classes (GEOG 692, 695, 696)
- 15 credit hours in the chosen field of specialization
- 3 credit hours in advanced research skills
- 6 credit hours in GEOG 700 Thesis Research

Doctoral Degree

The PhD program is highly selective, and admission is based upon demonstrated competence in previous work and promise of research ability. In addition to the materials required for MA admission, PhD applicants must submit representative samples of research writing and a comprehensive statement of professional goals and objectives. Students who have completed MA degrees in fields other than geography may be considered for admission to the PhD program. If admitted, however, they must undertake any remedial course work recommended by the department.

Requirements

The PhD program consists of advanced courses and research seminars in the department, independent reading and research, and work in related disciplines. Each candidate will be expected to have taken the core program required for MA candidates or its equivalent. In addition, the following are common elements of all geography PhD programs:

1. Attendance and participation, while in residence, in the geography colloquium;
2. Familiarity with the general development of geographic thought (GEOG 695);
3. 30 credit hours in a major field and 15 credit hours in a minor field of departmental specialization (course work taken at the MA level may be used in partial fulfillment of this requirement)
4. Fulfillment of a research skills requirement including (a) one language and (b) 9 credit hours in research technique courses (quantitative, computer applications, cartography, remote sensing, field, bibliography, or laboratory) or a second language;
5. Passing of written and oral comprehensive examinations; and
6. Submission and defense of a satisfactory dissertation.

Hawaiian and Indo-Pacific Languages and Literatures

College of Languages, Linguistics and Literature
Spalding 255
2540 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8672
(808) 956-7452
Fax: (808) 956-5978
E-mail: hip@hawaii.edu

Faculty

T. V. Ramos, PhD (Chair)—Philippine linguistics, language learning and teaching, multilingualism, sociolinguistics, child acquisition of language, Filipino language

J. Clausen, Phd—Ilokono language, language learning and teaching, Philippine linguistics, language and multimedia

P. L. Espiritu, MA—Ilokono language, Philippine theater, language learning and teaching

E. Hawkins, PhD—language learning and teaching, Polynesian linguistics, Hawaiian, immersion education

L. M. Kaʻawa, MA—Hawaiian learning and instruction, immersion education, curriculum development

F. Lesa, MA—language learning and teaching, Samoan
R. Lopes Jr., MA—innovative instruction of Hawaiian language through cultural means such as hula and music
N. C. Losch, MA—Hawaiian language and culture, Pacific cultures
K. K. Lucas, BA—Hawaiian language learning and instruction
R. E. S. Mabanglo, PhD—Philippine literature, poetry, drama, creative writing, Filipino language
K. Makekau-Whittaker, MEd—Hawaiian language, immersion education, curriculum development, culture and learning
W. H. Maurer, PhD—Sanskrit, Pali, Prakrit, Indology, Indo-European comparative and historical linguistics
J. F. Mayer, MA—language learning and teaching, Samoan
M. R. Nogelmeier, MA—Hawaiian language and literature, language teaching and learning
S. D. O'Harrow, Doceo—Vietnamese language, philology and civilization, Sino-Vietnamese
R. N. Sharma, PhD—Indian linguistics, Hindi, Sanskrit, and Panini
N. Silva, PhD—Hawaiian language, literature, politics and history
R. Solis, MA—Hawaiian language learning and instruction, Hawaiian religion, newspaper translating and broadcasting
J. H. Ward, PhD—Polynesian linguistics, Tahitian, Balinese
S. L. Warner, PhD—Hawaiian language, Hawaiian language immersion education, evaluation, curriculum development and second-language acquisition, educational psychology
K. L. Wong, MA—revitalization of Hawaiian language and people

Degrees and Certificates Offered: BA in Hawaiian; BA in liberal studies (concentration in Filipino, Hindi, Ilokano, Indonesian, Samoan, Sanskrit, Thai, or Vietnamese); Certificate in Hawaiian; Certificate in Indo-Pacific languages (Burmese, Hindi, Ilokano, Indonesian, Samoan, Sanskrit, Filipino, Tahitian, Thai, or Vietnamese)

The Academic Program

Hawaiian (HAW) and Indo-Pacific (IP) Languages and Literatures provides instruction in the languages of the Indo-Pacific area to a broad spectrum of students at the University. The department's coverage of these languages is unique in the United States: this is the only department in the country to offer a BA degree in Hawaiian language and the only one to offer every national language of Southeast Asia, as well as classical and modern Indian languages. Beyond language, the department offers courses in the literatures and cultures of the area, including literature in translation of Hawai'i, South and Southeast Asia, and the Philippines. Opportunities are available for study abroad in certain areas. The department at the Mānoa campus provides an opportunity without parallel elsewhere in the country for students to acquire an in-depth knowledge of the languages and cultures of that part of the world that encompasses more than 25 percent of the Earth's population and an unusual diversity of peoples.

All the department's elementary- and intermediate-level language courses may be used to fulfill the Hawaiian or foreign language requirement for all bachelor's degrees on the Mānoa campus. Students of Indo-Pacific languages and cultures can also enhance their opportunities to find a career in international relations; provide service to the community in such fields as social work, public health, nursing, medicine, and law; perform research on Asia and the Pacific; and develop cross-cultural awareness and understanding in Hawai'i's multicultural environment.

Language offerings include Burmese, Cambodian (Khmer), Hawaiian, Hindi, Ilokano, Indonesian, Pali, Prakrit, Samoan, Sanskrit, Filipino, Tahitian, Thai, Classical Tibetan, and Vietnamese. For additional languages and topics, see Indo-Pacific languages (IP) courses listed at the back of the *Catalog*.

Undergraduate Study

BA Degree in Hawaiian

Requirements

30 credit hours above HAW 201 and 202 with a GPA of 3.0 or better, including:

- HAW 301, 302, 401, 402, and 452
- HAW 321, 331, 332, 425, 426, 435B, 435C, 435D, 454, 463, 470, 484, 497A, and 499
- Remaining credit hours (up to 3) from SAM 102, TAHT 102, MUS 330E, 312, 412, 413, LING 345, ENG 482, SLS 360

Minor

In collaboration with the College of Education, the Hawaiian Language Division administers this minor in Hawaiian (immersion education) to prepare secondary subject area teachers for the Hawaiian Language Immersion Program in the Department of Education. Acceptance into the minor follows:

- Completion of 55 credits of university work with a 2.75 cumulative and major GPA
- Admission to an appropriate academic major
- Successful completion of the College of Education entrance exam and personal admissions interview
- Successful completion of HAW 302 or higher
- Attainment of a B average for all advanced level Hawaiian language courses.

Requirements

A total of 27–36 credits will be required with a minimal GPA requirement of 2.75 in the minor courses: 15–18 from the College of Education and 12–18 from Hawaiian Language

- College of Education: TECS 312D, EDEP 311, EDEF 310, one complementary course (ETEC 414; SPED 445; TECS 360; TECS 431), TECS methods course (33X–34X) in subject area
- Hawaiian: HAW 331, 332, 401–402, 463, and 470

Certificates

On recommendation of the Department of Hawaiian and Indo-Pacific Languages and Literatures, the University confers certification of achievement in Burmese, Filipino, Hawaiian,

Hindi, Ilokano, Indonesian, Samoan, Sanskrit, Tahitian, Thai, and Vietnamese.

Requirements

15 credit hours beyond the intermediate level in the language of choice, including:

- 6 credit hours in continuing language study
- 9 credit hours in language, literature, or structure courses selected to complement the major field of study

A 3.0 GPA in courses leading to the certificate is required.

Honors and Awards

Lokomaikaʻiokalani Snakenberg Hawaiian Language Graduate Scholarship

Offered to encourage graduate-level research and study for students specializing in Hawaiian language and related fields, this scholarship provides an award of up to $5,000 per semester to students registered in graduate programs at the University.

Dorothy M. Kahananui Scholarship in Hawaiian Language

This scholarship is offered to students who have successfully completed at least the intermediate level of Hawaiian language, with preference given to doctoral or master's degree candidates who plan to teach the language. The minimum amount of the award is resident tuition at UH Mānoa.

Red Mandarin and Lady Yi-suen Shen Scholarship in Hawaiian Studies

Offered to undergraduate students in Hawaiian studies at the University of Hawaiʻi at Mānoa, this scholarship covers tuition for the academic year. It is awarded to a degree candidate who demonstrates exceptional promise and achievement. Applicants must be pursuing a program of study that shows a central commitment to Hawaiian studies, including Hawaiian language.

History

College of Arts and Humanities
Sakamaki A-203
2530 Dole Street
Honolulu, HI 96822
Tel: (808) 956-8486
Fax: (808) 956-9600

Faculty

*M. P. Speidel, PhD (Chair)—Greece and Rome; ancient Near East
*L. Y. Andaya, PhD—Southeast Asia, Indonesia
*J. H. Bentley, PhD—early modern Europe, world history
*D. A. Chappell, PhD—Pacific Islands
*Y. H. Choe, PhD—modern Korea
*E. L. Daniel, PhD—Islam, Middle East
M. L. Daniel, PhD—early America, early national United States
*E. L. Davis, PhD—middle China
*D. L. Hanlon, PhD—Pacific Islands, ethnographic history
*S. J. Harten, PhD—European intellectual, France
*M. A. Henriksen, PhD—contemporary U.S.
*P. H. Hoffenberg, PhD—England, British Empire
*K. L. Jolly, PhD—medieval Europe
*H. H. W. Kang, PhD—pre-modern Korea
*P. N. King, PhD—Hawaiʻi, U.S. in the Pacific
*J. P. Kraft, PhD—U.S. business and labor
*T. B. Lam, PhD—Southeast Asia, Vietnam
M. V. Lanzona, PhD—Philippines, Southeast Asia
*R. E. McGlone, PhD—19th-century United States, social and family history
M.T. McNally, PhD—Tokugawa Japan, Japanese intellectual
*L. L. McReynolds, PhD—Muscovite and imperial Russia
*S. A. Minichiello, PhD—modern Japan
*R. L. Rapson, PhD—U.S. cultural and intellectual history
*P. F. Rehbock, PhD—history of science
*J. P. Sharma, PhD—South Asia
*M. Shi, PhD—modern China, social and urban history
N. Shibusawa, PhD—U.S. foreign relations, cultural, Asian American
*J. J. Stephan, PhD—modern Japan; Russia in East Asia
*P. Varley, PhD—traditional Japan
*H. F. Ziegler, PhD—modern Europe, Germany, quantitative methods

Cooperating Graduate Faculty

B. Andaya, PhD—Southeast Asia

Degrees Offered: BA in history, MA in history, PhD in history

The Academic Program

History (HIST) is the study of change and continuity in human society over time. Drawing upon concepts and methods of many disciplines, history provides perspective on the human condition, past and present. The discipline of history develops skills in evaluating evidence, organizing information, clarifying and structuring concepts, and writing narratives and expositions. History is a core around which liberal education can be structured. The study of history lays a foundation upon which one can develop a cultural, social, and intellectual life that brings daily living into contact with the wider world.

Majoring in history is an excellent way to move into specialized study in such areas as teaching, library and information science, foreign service, medicine, law, and business. Those who plan to pursue a career as professional historians will want to continue their education and obtain the MA and PhD degrees. The Department of History of the University of Hawaiʻi at Mānoa offers a full range of courses in American, Asian, European, Pacific, and world history.

* Graduate Faculty

Undergraduate Study

Bachelor's Degree

Requirements

Students must complete 33 credit hours of history at the 200-level and above, including:

- HIST 396 and 496
- 15 credit hours in one of four fields (United States, Europe, Asia/Pacific or comparative/world)
- One upper division course (3 credit hours) in each of the other fields
- One additional upper division history course

No more than 6 credit hours in 200-level courses are applicable to the major.

Minor

Requirements

For a student to minor in history, the declaration of intent should be made as early as possible after matriculation. The student must contact the undergraduate adviser of the department and complete the appropriate forms. The minor requires the successful completion with a grade of C or better of 15 credit hours of upper-division history courses. It is possible to concentrate in a particular area of history, but it is not necessary to do so. No one specific course is required for the minor.

Graduate Study

The department of history offers the MA and PhD degrees in the American, Asian, European, and Pacific fields. A field of world history is offered at the PhD level only. All applicants for advanced degree programs in history are requested to supplement the application and transcripts required by the Graduate Division with letters of recommendation (two for the MA, three for the PhD), preferably from professors with whom the applicant has worked; a sample of written work such as a term paper, seminar paper, or MA thesis; and the General Test scores from the GRE. These supplementary items should be sent directly to the department.

Complete details on all graduate programs in history, as well as financial aid available to prospective students, are outlined in a departmental brochure, available upon request from the department in Sakamaki A-203, 2530 Dole Street.

Recipients of advanced degrees in history have undertaken careers as teachers of history and social studies in secondary schools, community colleges, colleges, and universities. In addition, the study of history provides an excellent background for alternative careers in museology, library and archival work, government service, historical preservation, business and marketing research, and allied research fields. The department has a placement officer to assist graduates with career choices and in locating employment opportunities.

Courses for the graduate programs are to be selected from among the history courses listed in back of the *Catalog* and from graduate offerings in related disciplines as directed by the student's supervisory committee. The consent of the instructor is required for admission to all courses numbered 600 and above. Courses numbered over 600, except HIST 602, may be repeated *once* for credit.

Master's Degree

Intended candidates for the MA degree must present a minimum undergraduate preparation of 18 upper division credit hours in history or some closely allied field such as Asian studies, American studies, etc. Students who lack this preparation or who wish to undertake study in an area of history other than that of their undergraduate preparation must make up deficiencies either before or during graduate study. In the latter case the student will be admitted only conditionally, pending removal of the deficiencies.

The prospective MA candidate may select either Plan A (thesis) or Plan B (non-thesis). Both plans require the intended candidate to give evidence of competence in a foreign language appropriate to the field of major interest. In addition, students in the United States or East Asia history areas in either Plan A or Plan B must also meet seminar distribution requirements, which raise the minimum required 600-level work to 18 credit hours.

Plan A (Thesis) Requirements

Plan A requires a minimum of 24 credit hours of graduate work, at least 15 of which must be in courses numbered 600 and above (including HIST 602), plus 6 credit hours of HIST 700 Thesis Research, a written thesis, and a final oral examination, which is a defense of the thesis.

Plan B (Non-thesis) Requirements

Plan B requires a minimum of 30 credit hours of graduate work, at least 18 of which must be in courses numbered 600 and above (including HIST 602), comprehensive examinations in two fields of history, a final oral examination covering the two fields of history from the comprehensive examination, and two major research papers from graduate seminars in the major and minor fields.

Doctoral Degree

Intended candidates for the PhD degree are expected to possess the MA degree in history or its equivalent. The PhD candidate must demonstrate the capability of pursuing a successful career as a professional historian by showing initiative in historical research and by giving evidence of the ability to present findings both orally and in writing.

Requirements

The candidate must prove competence by the acquisition of a broad background in general history, passing four comprehensive examinations in two broad geographic areas of history and completing an original dissertation and a final oral examination. The candidate must also demonstrate a knowledge of at least two foreign languages related to the dissertation topic; for students of American or Hawaiian history an alternative requirement may, at the discretion of the doctoral committee, be substituted for one of the languages.

Information and Computer Sciences

College of Natural Sciences
POST 317
1680 East-West Road
Honolulu, HI 96822
Tel: (808) 956-7420
Fax: (808) 956-3548
Web: www.ics.hawaii.edu

Faculty

*S. Y. Itoga, PhD (Chair)—database systems, expert systems, logic programming
*E. Biagiono, PhD—networks, systems, languages
*D. Chin, PhD—artificial intelligence, natural language processing, cognitive science
*J. C. Corbett, PhD—software engineering, program verification
*M. E. Crosby, PhD—human-computer interaction, cognitive science
D. DeRyke, MA—software engineering, data modeling
*W. Gersch, DEngSc—mathematical statistics, time series, biomedicine, geophysics
*C. Hundhausen, PhD—human-computer interaction, visualization, computer-supported collaborative learning
*P. Johnson, PhD—software engineering, artificial intelligence
*A. Lew, PhD—systems programming, systems analysis, software engineering
*I. Miyamoto, DrEng—software engineering
*D. Pager, PhD—compiler theory, theory of computability, artificial intelligence
*W. W. Peterson, PhD—programming languages, software engineering
*L. Quiroga, PhD—information retrieval, databases, library systems, Web site design
*J. Stelovsky, DrTechSc—computer-hypermedia, human-computer interaction
*K. Sugihara, DrEng—algorithms, distributed computing, visual languages
*D. Suthers, PhD—educational technologies, artificial intelligence, human-computer interaction
*J. Yuh, PhD—control, robotics, design

Affiliate Graduate Faculty

D. R. Stoutemyer, PhD—computer algebra, mathematical software

Degrees Offered: BA in information and computer sciences, BS in computer science, MS in information and computer sciences, MLISc in library and information science, PhD in computer science, and PhD in communication and information sciences (interdisciplinary)

The Academic Program

Information and computer sciences (ICS) is the study of the description and representation of information and the theory, design, analysis, implementation, and application of algorithmic processes that transform information. Students majoring in ICS will learn to use computer systems, a valuable skill which can be applied in all fields of study. Students will also learn the scientific principles and technology required to develop new computer systems and applications. The curriculum covers all major areas of computer science with special emphasis on software engineering and computer networks, areas uniquely suited to Hawai'i's role as a multicultural and geographical center of the Pacific.

* Graduate Faculty

Undergraduate Study

Bachelor's Degree

To be admitted into the program, first-year students entering UH Mānoa directly from high school must first be admitted into the Colleges of Arts and Sciences. For continuing students, a cumulative GPA of at least 2.0 is required for admission.

BA in Information and Computer Sciences

Requirements

Students pursuing this degree are required to submit a short proposal listing the courses they intend to take to complete their ICS major. An ICS faculty adviser must approve this proposal in writing. Samples of course proposals are available at the ICS department Office. Students must complete the following courses (50 credits):

- ICS 101/101L, 111/111L, 141, 211, 212, 311, 312, 313, and 321,
- At least three ICS courses at the 400-level or above, including at most 3 credits of 499,
- Four upper division (300-level or above) courses in some area of concentration. The area of concentration courses do NOT have to be from the same department.

BS Degree

Requirements

Students must complete the following courses (44 credits):

- ICS 111/111L, 141, 211, 212, 311, 312, 313, 321, and 331/331L
- At least five ICS or other approved courses at the 400 level or above including at most 3 credits of ICS 499 Substitutions are permitted with the written approval of a faculty adviser.

Waiver of certain requirements, such as by Advanced Placement CS exam, must be approved by the faculty adviser.

Minor

A cumulative GPA of at least 2.0 and a grade of B or higher in ICS 111 and 111L are required for admission.

Requirements

Students must complete ICS 211 and 212 and their prerequisites, 111 and 141, and three ICS courses at the 300 level and above with a grade of C or better.

Graduate Study

The department offers the MS degree in information and computer sciences, the MLISc degree in library and information science (see the "Library and Information Science" section within the Colleges of Arts and Sciences for more information), and the PhD degree in computer science. The department is one of four academic programs that cooperate in an interdisciplinary doctoral program in communication and information sciences (see the "Communication and Information Sciences" section within the Colleges of Arts and Sciences for more information).

Applicants for the MS in information and computer sciences and the PhD in computer science are required to take the GRE General Test and subject area examination in computer science. Applicants from foreign countries must be academically qualified, proficient in English (minimum 600 TOEFL), and have sufficient financial support.

The department offers three forms of financial aid: teaching assistantships, research assistantships, and tuition waivers. The department offers a limited number of assistantships each semester, most of which are teaching assistantships. Teaching and research assistants work approximately 20 hours per week under the supervision of a faculty member and receive a stipend as well as a tuition waiver. Teaching assistants support instruction and research assistants support extramurally funded research projects. Teaching assistantships are awarded to those applicants who can best support the instructional program. Similarly, research assistantships are awarded to those applicants who can best assist faculty with their research projects. Applicants accepted for admission may be eligible for partial financial aid in the form of a tuition waiver from the Graduate Division and foreign applicants from Pacific or Asian countries may be eligible for Pacific-Asian Scholarships. Prior to submitting a tuition waiver application form, foreign applicants must submit TOEFL scores and documentation of financial support for expenses other than tuition to the Graduate Division Admissions Office. To apply for any of these forms of support, student should submit the ICS Graduate Assistantship Application along with three letters of recommendation using the Graduate Assistantship Evaluation Form. Because we can offer assistance to only a small fraction of applicants, we highly encourage students to also seek other forms of support, such as the East-West Center or computer-assisted databases such as CA$H (Computer-Assisted Scholarship Help), which lists over a thousand scholarships

Master's Degree

The master's program is intended for students planning either to specialize in computer science or to apply computer science to another field. Applicants in computer science, business, engineering, mathematics, or a natural science must present a baccalaureate degree. Applicants with degrees in other fields should consult with a graduate adviser prior to applying for admission. The applicant should present the following as minimum preparation for the program:

1. A working knowledge of the Java or C programming language and at least one advanced computer science course (for example, ICS 311, 312, 313, 321, or 331); and
2. A one-year course in calculus (for example, MATH 241 and 242).

Graduates of the master's program have secured programming, systems analysis, and other technical positions in industry, business, and government. Some have applied their technical skills to other careers while others have pursued doctoral studies in computer science.

Requirements

Plan A (thesis) and Plan B (non-thesis) are available. A minimum of 30 credit hours is required under both plans. Student programs must be approved by an adviser. A minimum B average must be maintained in all courses. The program or previous study must include the following:

1. ICS 141, 311, 312, 313, 321, and 331; two of ICS 411, 412, 413, and 414; and ICS 442 or 471; or equivalent courses;
2. At least six ICS courses numbered 600 to 692 including two in decade 1 (i.e., numbered 610–619);
3. Plan A: thesis taken as ICS 700; Plan B: one ICS course numbered 600–699 (a substitution is permitted with *written* approval of adviser) and a final project (based on prior graduate-level course work; computer programming projects must be accompanied by a written report) taken as ICS 699 for at least 3 credits at the end of the student's program of study; and
4. ICS 690 (taken for CR/NC), which does not count toward the 30-credit-hour minimum.

The administrative procedures for the program include the following rules:

1. The student must meet with his or her adviser during the first semester. Deficiencies that must be remedied are indicated at this time.
2. The student is admitted to candidacy following completion of at least 12 credit hours of courses applicable to the degree or after two semesters. After being admitted to candidacy, the student must file a degree plan prior to registering for the final semester; a student selecting Plan A must choose a thesis topic within one semester.
3. All changes in the degree plan must be approved in writing by the adviser before the diploma application is filed. At the beginning of the semester of expected graduation, the student must have a departmental "goldenrod" form signed by his or her adviser.

Doctoral Program

The department offers a PhD in computer science intended to prepare students for creative research, teaching, and service. There are two programs leading to the PhD degree, one designed for applicants entering with bachelor's degrees, and the other for those who already have master's degrees. Students may begin their program either in the spring or fall semesters.

Applicants with bachelor's degrees must first satisfy the admission and degree requirements of the ICS master's degree. The advantages are: (1) they are admitted at an early stage to the PhD program, (2) they will, in practice, usually take a year

LESS to obtain their PhD degree since they will be motivated to select courses in the MS portion of the requirements which prepare them for their comprehensive examinations, and (3) students who have completed the MS requirements will have the option of obtaining an MS degree even if they do not continue with the program.

Applicants with master's degrees in areas other than computer science may be admitted to the program, but will be required to fulfill their program deficiencies with additional coursework.

Requirements

Students must pass the comprehensive examinations by the end of their fifth semester or be dropped from the program. The comprehensive examination may cover the following areas:

- Compilers (ICS 611)
- Operating Systems (ICS 612)
- Software Engineering (ICS 613)
- Algorithms (ICS 621)
- Theory of Computation (ICS 641)
- Networks (ICS 651)
- Artificial Intelligence (ICS 661)
- Databases (ICS 624)

In addition, students must pass a seminar course(s), ICS 690, during the "PhD portion" of their program. After passing an oral examination covering their general preparation for the research involved, students must write a dissertation, which must be approved by a doctoral committee.

International Cultural Studies

International Cultural Studies Program
East-West Center, 1601 East-West Road
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Honolulu, HI 96848
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E-mail: culture@hawaii.edu
Web: www2.hawaii.edu/~culture/

Faculty

G. White, PhD (Co-Director)—East-West Center and anthropology
M-B. Yue, PhD (Co-Director)—East Asian languages and literatures
E. Buck, PhD—East-West Center education
A. Feeser, PhD—art
K. Ferguson, PhD—political science
J. Goss, PhD—geography
M. Helbling, PhD—American studies
J. Kamakawiwoʻole Osorio, PhD—Hawaiian studies
J. Logan, PhD—languages and literatures of Europe and the Americas
C. Sinavaiana-Gabbard, PhD—English
R. D. Trimillos, PhD—Asian studies
T. Wesley-Smith, PhD—Pacific Island studies
C. Yano, PhD—anthropology
M. Yoshihara, PhD—American studies

Affiliated Faculty

A. Arno, PhD—communication
D. Baker, PhD—English
J. Bentley, PhD—history
M. Chapman, PhD—geography
C. Franklin, PhD—English
C. Fujikane, PhD—English
D. Gladney, PhD—Asian studies
B. Griffin, PhD—anthropology
D. Hanlon, PhD—American studies
S. Harten, PhD—history
V. Hereniko, PhD—Pacific Island studies
R. Hsu, PhD—English
N. Kent, PhD—ethnic studies
L. Lyons, PhD—English
G. Maskarinec, PhD—anthropology
L. McReynolds, PhD—history
B. Murton, PhD—geography
M. Ogden, PhD—communication
J. Okamura, PhD—ethnic studies
K. Pauka, PhD—theater
J. Rieder, PhD—English
A. Robillard, PhD—sociology
M. Shapiro, PhD—political science
M. Sharma, PhD—Asian studies
N. Soguk, PhD—political science
B. Tobin, PhD—English

Certificate Offered: Certificate in International Cultural Studies

The Academic Program

The Certificate in International Cultural Studies offers a graduate interdisciplinary course of study that enhances existing degrees in Arts and Sciences, area studies, and the professional schools.

Given that the language of culture is increasingly heard in debates about issues as diverse as nationalism, human rights, immigration, trade, the environment, education, media, and the arts, the certificate program develops tools for a more informed, critical understanding of the role of culture in public debates and policy.

Hawai'i's location at the intersection of local, U.S. and Asian spheres of influence provides an important vantage point from which to take up the social and cultural transformations taking place in today's era of economic globalization and restructuring. Issues of cultural identity and politics are sharply drawn in the distinctive mix of indigenous, local and international communities in Hawai'i today. Program courses and activities support a variety of approaches to analyzing and understanding the significance of culture, and of cultural difference, as global flows of people, culture and capital increase the heterogeneity and flux of everyday life throughout the world.