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### Degrees, Minors, and Certificates

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<td>Planning Studies (p. 170)</td>
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<td>Psychology (p. 153)</td>
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<td>Public Administration (p. 155)</td>
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<td>Religion (p. 157)</td>
<td>Min, BA, MA</td>
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<td>Russian (p. 130)</td>
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<td>Sanskrit (p. 125)</td>
<td>U Cert, BA</td>
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<td>Second Language Studies (p. 159)</td>
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<td>Thai (p. 125)</td>
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<td>Theatre (p. 165)</td>
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<td>Urban and Regional Planning (p. 170)</td>
<td>G Cert, MURP, PhD</td>
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<td>Vietnamese (p. 125)</td>
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<td>Women’s Studies (p. 173)</td>
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<tr>
<td>Zoology (p. 176)</td>
<td>Min, BA, BS, MS, PhD</td>
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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 French and Spanish.
4 Students can receive a BA in interdisciplinary studies in environmental studies, European cultural studies, Indo-Pacific languages, linguistics, and peace studies. In addition, students can design their own majors utilizing this program.
5 The BA in interdisciplinary studies for Indo-Pacific languages has several concentrations: Hindi, Indonesian, Samoan, Sanskrit, Thai, and Vietnamese.
6 The Certificate in Indo-Pacific Languages is offered in Burmese, Filipino, Ilokano, Indonesian, Samoan, Sanskrit, Tahitian, Thai, and Vietnamese.
7 BA in Philippine Language and Literature with concentration in Filipino or Ilokano
8 The Department of Geography coordinates the Graduate Certificate in Ocean Policy.
Administration

**College of Arts and Humanities**
Hawai‘i Hall 314
2500 Campus Road
Honolulu, HI 96822
Tel: (808) 956-6460
Fax: (808) 956-9085
Web: www.hawaii.edu/arthum/
Interim Dean: Thomas R. Bingham
Interim Associate Dean: Hye-ryeon Lee
Departments and programs: Academy for Creative Media, American Studies, Art and Art History, Communicology (formerly Speech), Historic Preservation, History, Museum Studies, Music, Philosophy, Religion, 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
Web: www.lll.hawaii.edu/
Dean: Robert Bley-Vroman
Interim Associate Dean: Kimi Kondo-Brown
Departments: East Asian Languages and Literatures, English, Indo-Pacific Languages and Literatures, Languages and Literatures of Europe and the Americas, Linguistics, Second Language Studies

**College of Natural Sciences**
Bilger 102
2545 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-6451
Fax: (808) 956-9111
Web: www.hawaii.edu/natsci/
Dean: William L. Ditto
Associate Dean: Michael W. Peters
Departments and programs: Biology, Botany, Chemistry, Information and Computer Sciences, Library and Information Science, Marine Option Program, Mathematics, Microbiology, Physics and Astronomy, Zoology

**College of Social Sciences**
Hawai‘i Hall 310
2500 Campus Road
Honolulu, HI 96822
Tel: (808) 956-6570
Fax: (808) 956-2340
Web: socialsciences.hawaii.edu/
Dean: Denise E. Konan
Interim Associate Dean: Ross A. Sutherland

Departments, schools, and programs: Anthropology, Communications, Economics, Ethnic Studies, Geography, Journalism, Peace Studies, Political Science, Psychology, Public Administration, Public Policy Center, Social Science Research Institute, Sociology, Urban and Regional Planning, Women’s Studies

**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.

An excellent education is the primary mission of UH 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 many of their first UH Mānoa 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 college are designed with the conviction that, beyond the core curriculum, liberally educated persons should have both broad exposure to and 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 or certified also by national organizations. Check with individual academic departments and programs for their accreditation status or affiliation with national or international organizations.
Degrees, Minors and Certificates

For a listing of the degrees, minors, and certificates offered by the Colleges of Arts and Sciences, see table on p. 82.

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. 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 (not C-) or better and an overall GPA of 2.5 or better for those courses. Information on specific certificates can be obtained from the appropriate department or program office. See page 82 for a complete listing of certificate programs offered by the Colleges of Arts and Sciences.

Marine Option Program

The Marine Option Program (MOP) is a unique opportunity for undergraduates with an interest in the ocean. It is open to students in all fields and provides a clearinghouse for marine-oriented experiential education as well as a chance for students with common interests to meet. MOP sponsors a wide variety of marine activities, including field trips, workshops, seminars, symposia, and noncredit courses.

A certificate is awarded to undergraduates who successfully complete at least 12 credit hours of marine-related courses (including OCN 201, ORE 202, ZOOL 200, or an equivalent survey course; one 3-credit interdisciplinary ocean course; 6 credit hours of marine electives). In addition, students must complete the MOP Seminar (IS 100) followed by the MOP skill project. The unique MOP skill project (worth 3 or more credits, e.g. IS 400V) allows students to design and conduct a personal marine or aquatic project related to their educational goals. Past projects have run from scientific research to endeavors in the arts. Classified and unclassified graduate students are also eligible to enroll in MOP and earn a certificate.

Students interested in MOP or in marine careers and curricula should visit the Marine Option Program offices in Dean Hall, room 105A; tel. (808) 956-8433; Email mop@hawaii.edu, www.hawaii.edu/mop/.

Advising

Student Academic Services Office
QLCSS 113
Honolulu, HI 96822
Tel: (808) 956-8755
Fax: (808) 956-9696
Web: www.advising.hawaii.edu/artsci/

Within the context of a liberal arts education, the Colleges of Arts and Sciences Student Academic Services (CASSAS) assists students to clarify their life and career goals, develop meaningful educational plans, and prepare for productive lives, enlightened citizenship, and life-long learning.

Students at UH Mānoa have an exceptional amount of freedom in crafting their college experience. Students are able to explore connections between fields, engage in co-curricular activities, and develop unique combinations of majors, minors, and certificates. Students are expected to be active partners in the advising process by initiating contact with both an advisor in their major department and CASSAS and should come to all advising sessions prepared. For more information, see the Advising Handbook available on the CASSAS website.

CASSAS has developed learning outcomes for Arts and Sciences majors based on current programs and services. The level of achievement for each of these outcomes becomes increasingly more complex throughout a student’s college career. As an active participant in the CASSAS advising partnership:

- Throughout their academic career, students can identify and explain their interests, strengths, values, and career/life goals.
- Students can develop and implement an academic and educational plan.
- Students understand how the A&S degree prepares them for success in their personal, academic, and professional lives.

Besides meeting all mandatory advising initiatives required by their major departments, declared Arts and Sciences majors should take advantage of the range of advising services offered by CASSAS throughout their time at UH Mānoa. Students can also meet with advisors for clarification of degree requirements and for resolution of complex academic issues and individual concerns.

Incoming Students and Freshmen

Through group advising at New Student Orientation and individual appointments during their first year, new students will have the opportunity to begin the educational planning process with CASSAS advisors. Freshmen should also meet with an advisor in their major department (see department listing).

Sophomores

Sophomores should continue to seek the advice of both major advisors and advisors in CASSAS in order to clarify their goals, interests, and strengths. Students should reflect upon their academic and co-curricular activities to ensure that they have chosen the appropriate major and are making progress toward graduation. The educational planning begun in their first year should continue and, if possible, include curricular and co-curricular courses and events established on a timeline.
Juniors

Juniors should research the prerequisites for their future academic and/or professional lives (i.e., application materials, essential skills). Juniors should prepare for graduation by participating in a Grad session to create an educational plan that reflects remaining coursework and activities applicable toward their degree and future goals.

Seniors

Seniors should refine their educational plan to account for all academic and co-curricular components necessary for graduation. Students should be able to reflect on the meaning of their undergraduate education in the context of their goals, interests and strengths. Seniors should use this understanding to identify and take concrete steps towards planning for post-graduation life.

Undergraduate Programs

The Colleges of Arts and Sciences (A&S) offer bachelor of arts (BA), bachelor of fine arts (BFA), bachelor of music (BMus), and bachelor of science (BS) degrees in 56 different majors. In addition, the Colleges of Arts and Sciences offer 28 minors and 37 different certificates. Detailed program information is available at the Student Academic Services office (QLCSS 113) or at www.advising.hawaii.edu/artsci.

During their first year at UH Mānoa, A&S students should meet with advisors both in the A&S Student Academic Services office and in their major departments to discuss their educational plans.

Students interested in an A&S major should declare their major at least by the end of their sophomore year by submitting a Declaration of Major form to the A&S Student Academic Services office. Some majors, such as those in the performing arts and the sciences, should be declared as soon as possible, preferably during the freshman year, because they require courses that must be taken in a specific order. Natural Science majors should refer to www.advising.hawaii.edu/artsci/NatSci/naturalscience.asp for more information. Information on specific majors, minors, and certificates is available through the respective academic departments and their websites.

Admission Requirements

Admission requirements for the Colleges of Arts and Sciences are the same as those for UH Mānoa.

Some majors, however, have specific admission requirements (see departments’ sections).

Steps to Graduation

1. Complete the five requirement areas for undergraduate degrees as described in the following section and remain in good academic standing (see “UH Mānoa Graduation Requirements” under “GPA”).
2. File for graduation two to three semesters in advance by participating in a “GRAD Session” at the A&S Student Academic Services office.
3. Pay the UH Mānoa diploma fee in order to receive a diploma and transcripts.

Requirements for Undergraduate Degrees from the Colleges of Arts and Sciences

Arts & Sciences degrees and a liberal arts education offer a broad-based and integrated perspective on the world and human experiences; better self-understanding; societal, civic, and global knowledge; an independent and inquiring mind; a desire and capacity for life-long learning; and valuable transferable skills. For more information see “Liberal Arts and Transferable Skills” on the CASSAS website.

Students are encouraged to explore connections between disciplinary fields, engage in co-curricular activities, and develop unique combinations of majors, minors, certificates, and electives.

A&S students must fulfill the following five requirement areas: UH Mānoa General Education Core, UH Mānoa Graduation, A&S College, A&S Degree, and A&S Major. Students should refer to their respective “Program Requirement Sheets” on the CASSAS website to assist them in selecting courses that incorporate UH Mānoa General Education requirements with Arts & Sciences requirements.

UH Mānoa General Education Core Requirements

A&S students must fulfill the UH Mānoa General Education Core, which consists of Foundations and Diversification requirements. Some of the courses that fulfill these Core requirements may be double dipped with other requirements (see “General Education”).

The minimum course grade to fulfill Core requirements is a D (not D-). These requirements must be taken for a letter grade, unless the course is offered only with the CR/NC grade option.

UH Mānoa Graduation Requirements

A&S students must fulfill the UH Mānoa Graduation requirements, which consist of Focus and Hawaiian or Second Language (HSL), credit, and grade point average (GPA) requirements (see “General Education” and “Undergraduate Education”).

The minimum course grade to fulfill Focus and HSL requirements is a D (not D-). These requirements must be taken for a letter grade, unless the course is offered only with the CR/NC grade option.

BMus students concentrating in voice may fulfill the HSL requirement by completing the first year of study in two languages. This substitution must be approved by the department chair. All other A&S students must meet the stated HSL requirement.

Credits

- Students must earn a minimum of 120 total applicable credits, of which 45 credits must be upper division (300-level and above) and at least 30 credits must be completed in residence at UH Mānoa. Natural Sciences majors should contact CASSAS for exceptions to the upper division credit limit.
Students must complete their academic work and apply for a degree in a timely manner (see "Excess Credit Policy").

**Grade Point Average (GPA)**

Students must earn at least a 2.0 GPA (C average) for all UH Mānoa registered credits and must not be on academic action (i.e., not on probation, suspension, dismissal). Some majors or programs have specific GPA requirements (see department’s sections).

**A&S College Requirements**

A broad exposure to the liberal arts is achieved by students earning a minimum number of credits from liberal arts courses and developing facility in liberal arts disciplines. A&S students have the option of choosing Breadth, Depth, or an A&S major that demands expertise in performance or research.

### A&S Options - Complete one of the following:

#### Option 1–Breadth

Complete at least 3 credits from each of the four A&S Colleges (College of Arts and Humanities, College of Languages, Linguistics, and Literature, College of Natural Sciences, College of Social Sciences).

Courses used to fulfill the Breadth requirement can double dip with Focus. Up to 3 of the credits can be counted toward major requirements.

Credits from MATH 103, 104, and 135 do not satisfy the Natural Sciences Breadth requirement, but they can be applied to the minimum 120 total credits for graduation.

The minimum course grade to fulfill the Breadth requirement is a D (not D-). These requirements must be taken for a letter grade, unless the course is offered only with the CR/NC grade option.

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### Option 1: Breadth

<table>
<thead>
<tr>
<th>College of Arts &amp; Humanities (AH)</th>
<th>3 credits, taken from any of the areas listed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academy for Creative Media (ACM), American Studies (AMST), Art and Art History (ART), Communicology (formerly Speech) (COMG), Dance (DNCE), History (HIST), Music (MUS), Philosophy (PHIL), Religion (REL), Theater (THEA)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Languages, Linguistics, and Literature (LLL)</th>
<th>3 credits, taken from any of the areas listed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asian Languages &amp; Literatures: Chinese (CHN)<em>, East Asian Languages &amp; Literatures (EALL)**, Japanese (JPN)</em>, Korean (KOR)<em>; English (ENG); Indo-Pacific Languages &amp; Literatures: Arabic (ARAB)</em>, Burmese (Burm)<em>, Cambodian (CAM)</em>, Chamorro (CHAM)<em>, Filipino (FIL)</em>, Indo-Pacific Languages &amp; Literatures, (IP)<strong>, Hindi (HNDI)<em>, Ilokano (ILO)</em>, Indonesian (IND)<em>, Lao (LAO)</em>, Maori (MAO), Pali (PALI), Prakrit (PRAK), Samoan (SAM)<em>, Sanskrit (SANSK)</em>, Tahitian (TAHT)<em>, Thai (THAI)</em>, Tibetan (TIB)*, Tongan (TONG), Vietnamese (VIET)</strong>; Interpretation &amp; Translation Studies (IT); Languages &amp; Literatures of Europe and the Americas: French (FR)<em>, German (GER)</em>, Greek (GK)<em>, Hebrew (HEB)</em>, Italian (ITAL)<em>, Languages &amp; Literatures of Europe and the Americas (LLEA)**, Latin (LATN)</em>, Latin &amp; Iberian Studies (LAIS), Portuguese (PORT)<em>, Russian (RUS)</em>, Spanish (SPAN)*; Linguistics (LING); Second Language Studies (SLS)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>College of Natural Sciences (NS)</th>
<th>3 credits, taken from any of the areas listed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Astronomy (ASTR), Biology (BIOL), Botany (BOT), Chemistry (CHEM), Information &amp; Computer Sciences (ICS), Library and Information Science (LIS), Mathematics (MATH), Microbiology (MICR), Physics (PHYS), Zoology (ZOO)</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** MATH 103, 104, and 135 do not satisfy the College of Natural Sciences Breadth requirement, although they count towards the minimum 125 credits required for graduation.

<table>
<thead>
<tr>
<th>College of Social Sciences (SS)</th>
<th>3 credits, taken from any of the areas listed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology (ANTH), Communication (COM), Economics (ECON), Ethnic Studies (ES), Geography (GEOG), Journalism (JOUR), Peace Studies (PACE), Political Science (POLI), Population Studies (PPST), Psychology (PSY), Public Administration (PUBA), Sociology (SOC), Urban &amp; Regional Planning (PLAN), Women’s Studies (WS)</td>
<td></td>
</tr>
</tbody>
</table>

### Option 2: Depth

**Minors**


**Undergraduate Certificates**

East Asian Languages: Chinese, Japanese, Korean; Economics; Environmental Studies; Ethnic Studies; Indo-Pacific Languages: Burmese, Filipino, Hindi, Ilokano, Indo-Pacific, Indonesian, Khmer, Samoan, Sanskrit, Tahitian, Thai, Vietnamese; Islamic Studies; Languages and Literatures of Europe and the Americas: Classics, French, German, Latin America and Iberian Studies, Russian, Russian Area Studies, Spanish; Law and Society; Linguistics; Marine Option Program; Mathematical Biology; Music; Peace Studies; Social Science and Health; Sociology; Women’s Studies

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* Language courses taken to fulfill the Hawaiian/second language requirement may not be used to satisfy Option 1 requirement of 12 credits, 3 credits from each Arts & Sciences College.

** Courses offered in English
**Option 2—Depth:** Complete an A&S minor or certificate in a subject other than the major or complete a second A&S major.

Courses for a minor or certificate used to fulfill Depth can double dip only with Focus.

The minimum course grade to fulfill the Depth requirement is a C (not C-). These requirements must be taken for a letter grade, unless the course is offered only with the CR/NC grade option. Minors, certificates, and majors often have minimum GPA requirements (see each department's sections).

**Option 3:** Complete one of the following A&S degrees: BFA, BMus, BS, or BA-Interdisciplinary Studies.

**Credit Maximums***

- Practicum courses: 12 credits
- Directed reading and research (-99) courses: 9 credits
- Activity courses (such as KRS): 8 credits

*A&S students can take as many credits in these areas as they would like, but only credits up to these maximums apply to the total 120 credits needed for graduation.

**A&S Degree Requirements**

The Colleges of Arts and Sciences offer bachelor of arts (BA), bachelor of fine arts (BFA), bachelor of music (BMus), and bachelor of science (BS) degrees, each of which has specific requirements as listed below. Courses used to fulfill these requirements can double dip with UH Mānoa General Education Core, UH Mānoa Graduation, and A&S Major requirements.

**Bachelor of Arts (BA), Bachelor of Fine Arts (BFA), Bachelor of Music (BMus), BA-Interdisciplinary Studies (BA-IS)**

- One of the following (these courses also satisfy the UH Mānoa General Education Core “FS” requirement): BUS 250, ICS 141, 241, MATH 100, 100A, 112, 140, 161, 203, 215, 241, 251A, NREM 203, PHIL 111, 111A, 111, or SOCS 150

**Bachelor of Science (BS)**

- Calculus I: MATH 215, 241, or 251A (these courses also satisfy the UH Mānoa General Education Core “FS” requirement)
- Calculus II: MATH 216, 242, or 252A
- Chemistry: CHEM 161/161L and 162/162L or 171/171L or 181A/181L
- Physics: PHYS 151/151L and 152/152L or 170/170L and 272/272L

(These Chemistry and Physics lecture courses also satisfy the UH Mānoa General Education Core “DP” requirement. These lab courses also satisfy the UH Mānoa General Education Core “DY” requirement.)

**Note:** Many introductory science and mathematics courses require an assessment examination to determine appropriate
A&S Major Requirements

A&S major requirements offer students specialization in an academic field of study and develop liberal arts skills. Major requirements contribute to the ideal liberal arts education, which prepares students for productive lives and careers, enlightened citizenship, and lifelong learning.

Major requirements are explained in each department’s sections in this Catalog, in the online Catalog, and on the department’s websites.

The minimum course grade to fulfill major requirements is a C (not C-). These requirements must be taken for a letter grade, unless the course is offered only with the CR/NC grade option.

A&S students should meet regularly with both their major advisor at their respective department office and with an A&S college advisor in the Student Academic Services office (QLCSS 113).

Second or Multiple Majors and Minors

A&S 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 UH Mānoa’s excess credit policy (see “Undergraduate Education”).

The Colleges offer minors in 28 disciplines. Most minors require a minimum of 15 credits of non-introductory and upper division level course work, completed with a grade of C (not C-) or better.

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

Holders of a first baccalaureate degree 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. Students interested in pursuing the post baccalaureate second major option should meet with the undergraduate advisor in the second major in order to request permission to pursue a post baccalaureate second major and to identify the major requirements they need to fulfill. During a student’s last semester, a “Colleges of Arts and Sciences Graduation Worksheet Major Requirements” (goldenrod) form must be submitted to the Colleges of Arts and Sciences Student Academic Services.

Second Baccalaureate Degree

Priority for admission into any Arts and Sciences baccalaureate program is given to students seeking their first undergraduate degree. Applications must be received by the Office of Admissions by the established deadlines.

All applicants must meet admissions requirements for the degree program to which they are applying. 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. Coursework used towards a major/ minor/certificate in the first degree cannot be used to satisfy major/minor/certificate requirements in the second degree, unless specific courses are required in the second degree. Second degree students must earn a minimum of 30 credits in courses taken at UH Mānoa upon admission as a second baccalaureate degree candidate while continuously enrolled in the colleges, and must satisfy all program requirements current at the time of official admission into the program. For more information, see the Arts and Sciences Student Academic Services website, www.advising.hawaii.edu/artsci.

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

Professional Programs

Pre-professional students, i.e., students who plan to pursue careers such as Education, Engineering, Law, Medicine, Social Work, etc., often need extra course work and preparation and should seek academic advising as early as possible.

For almost all professional schools, a liberal arts education such as that offered in the Colleges of Arts and Sciences provides an essential foundation. Some professional schools admit undergraduate students in transfer; others require that students complete a baccalaureate degree before being admitted. Most professional schools also have specific prerequisites that students must complete before applying.

Pre-professional students should consult both the recommendations set by the appropriate national organization and the specific prerequisites of the professional schools they hope to attend.

Students interested in health and law careers should visit the Pre-Health/Pre-Law Advising Center (PAC), a walk-in resource center located in QLCS 101. PAC is staffed by trained peer advisors who assist students in clarifying career goals, choosing a major, planning appropriate course work, finding opportunities to gain experience, and applying to schools.
Graduate Programs

Information regarding graduate programs and admission is in the “Graduate Education” section of the Catalog. Each department also includes information in its description about their 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 advisor 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.

Honor Societies

Honor societies at UH Mānoa 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 life writing. CBR programs include teaching, publication, and outreach activities.

In conjunction with the Department of English, CBR offers thesis advising for PhD and MA projects, and awards the Biography Prize annually for work in life writing by a UH Mānoa graduate student. The Department of English also offers a number of graduate and undergraduate courses in life writing. A BA program in biography is offered through the Interdisciplinary Studies Program.

CBR publishes Biography: An Interdisciplinary Quarterly, the premier scholarly journal in the field. Appearing continuously since 1968, Biography explores the theoretical, historical, generic, and cultural dimensions of life writing. CBR also sponsors the Biography Monograph series, a book publishing enterprise designed to further the study and practice of life writing 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 life writing. CBR is a founding partner of Biography Hawai‘i, a television documentary series that focuses on residents whose lives have had a lasting impact on these islands. The center also hosts iaba-l@hawaii.edu, the listserv and discussion forum for the International Auto/Biography Association.

Language Learning Center

The Language Learning Center (LLC) located in Moore Hall provides technical support services to enhance language teaching and learning in the College of Languages, Linguistics, and Literature. The center facilitates research and development projects and the implementation of innovative language teaching methods and approaches.

LLC’s Multimedia Computer Labs consist of a Macintosh Lab, a PC Lab, and a Digital Language Lab. The PC Lab consists of 25 Windows XP PCs and the Macintosh Lab consists of 15 OS X Mac Minis and an additional 5 Windows XP PCs. All the computers have high speed access to the internet and are networked to a central file server for file serving across both labs. They are also configured with software for a host of languages, including non-Roman script Asian languages. Both labs are equipped with a high speed printer and an LCD projection system. The two labs are available for drop-in use by students, and for class sessions. The Digital Language Lab, consisting of 12 Windows XP PCs, is available for drop-in use by students specifically for language audio listening and voice recording. In addition to the Digital Language Lab, the LLC distributes audio course materials to students on CD.

A Faculty Development Lab facilitates faculty projects to integrate technology into teaching. Through consultation, training, and support, LLC staff enables faculty to enrich their course delivery through technology-enhanced instruction. The lab is also used for professional development workshops for faculty and staff. This lab is equipped with 13 Windows XP PCs and 1 Mac Mini OS X computer that are specifically configured for multimedia development and desktop publishing and has a high speed color laser printer with auto duplexing for double-sided printing.

The center’s facilities also include broadcast-standard video and audio production suites and a satellite station consisting of C and Ku-band tracking dishes for uplinks, downlinks, and videoconferencing. Additional facilities include language laboratories, viewing rooms, a web-conferencing meeting room, and
multi-purpose media rooms. A variety of audio-visual equipment is available for check out. The LLC also regularly hosts national and international events sponsored by various units in the college.

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, and conducts outreach activities to support Hawai’i’s language-teaching community.

National Foreign Language Resource Center

Drawing on UH Mānoa’s strengths in foreign language teaching, applied linguistics, and second language acquisition, National Foreign Language Resource Center (NFLRC) undertakes projects that focus primarily on the less commonly taught languages of East Asia, Southeast Asia, and the Pacific. However, many of the projects have implications for the teaching and learning of all languages, and the overriding goal of all our projects is to develop prototypes for language professionals to apply broadly as resources to improve foreign language education nationally. The Hawai’i NFLRC, established in 1990, is the oldest of only fifteen U.S. DOE-funded Language Resource Centers in the nation. Visit our website at nflrc.hawaii.edu.

Academy for Creative Media

College of Arts and Humanities
Crawford 210
2550 Campus Road
Honolulu, HI 96822
Tel: (808) 956-7736
Fax: (808) 956-6662
Email: acm@hawaii.edu
Web: www.hawaii.edu/acm/

Faculty

T. Brislin, PhD (Chair)—media ethics; critical studies
M. Booth, MFA—documentary, critical studies
D. Boulos, MFA—animation
L. Flanary, MFA—screenwriting, indigenous filmmaking
A. Misawa, MFA—cinematic and digital production
J. Moffett, MFA—screenwriting, cinematic & digital production
K. Ng, PhD—critical studies
G. Wang, MFA—post production

Degree Offered: BA in creative media

The Academic Program

The Academy for Creative Media (ACM) emphasizes narrative, or storytelling, theories, skills, and application across multiple platforms of digital media and within a context of cultural and aesthetic values. More than just a “film school,” ACM seeks to empower students to tell their own original and authentic stories of Hawai’i, the Pacific and Asia rather than have those stories told for them through a different cultural lens that is distant and often distorted.

ACM offers a core curriculum and specialized courses in three tracks: Digital Cinema, Computer Animation, and Critical Studies. A catalog of courses, academic planning guidelines, and program information can be found on the Academy’s website at: www.hawaii.edu/acm.

Undergraduate Study

Bachelor’s Degree

Students have the flexibility to design an academic program around a core of ACM courses and electives including a variety of UH Mānoa departments offering courses in film and media studies. Students work in close consultation with faculty to develop a program that reflects the development of academic, writing, creative, and critical thinking skills.

Requirements

To declare a major in Creative Media, students must:

- Have completed or be enrolled in Cinema and Digital Media (ACM 255), and have completed 12 or more credit hours with an overall 2.75 GPA;
- Be enrolled in the Colleges of Arts and Sciences.

To complete the creative studies major, students must design a detailed and acceptable academic plan, under the guidance of an ACM faculty advisor, consisting of 36 credit hours that emphasizes one of the three ACM tracks, includes
the required core of ACM courses, and is supplemented with elective courses. Six credit hours of electives may be taken from departments outside of ACM.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Required Courses**
- ACM 255
- ACM 310, 315, or 320
- ACM 350 or 355
- 9 credits from any of the following: ACM 352, 360, 380, 382, 385, 460, 480, 485, and 490
- 12 credit hours from one of three ACM degree tracks

**Computer Hardware and Software Requirements**
The curriculum of the Academy for Creative Media requires students to have access to a laptop computer. Hardware and software specifications can be found at www.hawaii.edu/acm/computer.

**Advising**
Introductory information on the academy, including guidelines for academic planning, can be found at www.hawaii.edu/acm. All students accepted for the major are assigned a faculty advisor. Advising is mandatory to design the student's academic plan, and for any subsequent changes.

### American Studies

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

**Faculty**
*D. Stannard, PhD (Chair)—social and cultural history, race and racism, theory and method
*W. Chapman, PhD—historic preservation
*J. Eagle, PhD—film/media, gender studies, U.S. cultural history
*V. Gonzalez, PhD—American empire, tourism and militarism, gender and sexuality, ethnic and cultural studies
*K. Kosasa, PhD—visual and cultural studies, museum studies, critical pedagogy
*B. McDougall, PhD—indigenous studies, literary studies
*D. Ogawa, PhD—intercultural and Japanese American studies
*R. Perkinson, PhD—southern and western history, race and class, crime and punishment, American empire
*K. Sands, PhD—religion in America, religion and law, women in religion, Christian history, theory of religion
*J. Stanton, PhD—culture and arts
*M. Yoshihara, PhD—U.S. cultural history, U.S.-Asian relations, Asian American studies, literary and cultural studies, gender studies

**Cooperating Graduate Faculty**
K. Ng, PhD—religion in America, religion and law, Christian history, theory of religion

**Affiliate Graduate Faculty**
A. Kikumura-Yano, PhD—Japanese-American studies, Asian American studies, museum studies
W. Murtagh, PhD—historic preservation
K. Yamazato, PhD—American literature and culture

**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, Graduate Certificate in Museum Studies

### 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 UH 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, graduate certificates are offered in historic preservation and museum studies.

**Affiliations**
The department is affiliated with the American Studies Association, American Association of Museums, Hawai‘i’s Museums Association, National Council of Preservation Education, and National Trust for Historic Preservation.

**Advising**
The undergraduate advisor 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:
- 21 credit hours of AMST upper division courses, including AMST 381, 382, 480, and 481 or 482 (one lower division course may now be counted)
- 9 remaining credit hours may include upper-division courses in either AMST courses and/or allied humanities and social sciences courses (no more than 3 credit hours of
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. In addition to the admission requirements of the Graduate Division, the applicant should have a copy of his or her latest GRE scores, Graduate Program Supplemental Information form, Statement of Objectives, and at least two letters of recommendation sent directly to the department. Each letter of recommendation should have the “Waiver of Access to Confidential Letters/Statements” form attached to it. PhD applicants are also required to submit a writing sample, preferably a paper that was written for a graduate course. Applications for graduate admission are considered for either fall (September-December) or spring (January-May) semester. Application deadlines for local and mainland applicants are: February 1 for fall; September 1 for spring. Application deadlines for foreign applicants are: January 15 for fall; August 1 for spring. There is no summer admission to advanced degree programs in the Graduate Division. There is an application fee.

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 and 602 are offered annually, and most other 600-level courses are offered once every three years.

Minor Requirements

Students must complete 15 credit hours, including:

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

Certificate

Certificate in Historic Preservation

Candidates for the Certificate in Historic Preservation must possess a 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 ANTH 645, Historic Preservation
- 3 credit hours of AMST 675, Preservation: Theory and Practice
- 3 credit hours of AMST 695, Historic Preservation Practicum
- 6 credit hours in field of specialization

A maximum of 6 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.

Graduate Certificate in Historic Preservation

A dissertation of high quality and its successful oral defense constitutes the culminating requirement for the PhD degree. The dissertation committee consists of at least three members who are qualified to direct independent work in preservation.

Requirements

Students must complete 36 credit hours, including:

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

More specific requirements are detailed on the American studies website at: www.hawaii.edu/amst.

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. In most instances, admission to the PhD program requires applicants to possess an MA degree. However, occasionally an applicant with a BA and exceptionally strong credentials may be admitted directly into the doctoral program.

Requirements

Students must complete 48 credit hours including:

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

Students must also complete:

- A qualifying examination consisting of two written parts covering the two areas of specialized fields of student’s choice and an advanced graduate syllabus followed by an oral examination dealing with all three areas
- An oral comprehensive examination administered by the dissertation committee
- A dissertation of high quality and its successful oral defense

Plan A (Thesis)

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

More specific requirements are detailed on the American studies website at: www.hawaii.edu/amst.

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 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 and a graduate seminar course
- 15 credit hours in a chosen field of specialization
- written and oral examinations

More specific requirements are detailed on the American studies website at: www.hawaii.edu/amst.
The program concludes with a formal colloquium presentation. More information is available on the Historic Preservation Program’s website at www.hawaii.edu/amst/historic.htm.

Graduate Certificate in Museum Studies

Candidates for the Certificate in Museum Studies must possess a BA degree. The Museum Studies Graduate Certificate Program provides an opportunity to learn about museums, acquire professional experience, and develop research skills.

Requirements

Students must complete 18 credit hours of graduate course work:
- 3 credit hours of AMST 683, Museums: Theory, History, Practice
- 3 credit hours of AMST 684, Museums and Collections
- 3 credit hours of AMST 685, Museums and Education
- 3 credit hours of AMST 686, Museum Studies Practicum
- 6 credit hours of electives

A maximum of 6 credit hours may be applied simultaneously to the Museum Studies Certificate and to another degree. Internships are usually undertaken with local museums and related institutions or organizations and under the direction of a supervisor qualified to direct independent work in a museum related project. The program concludes with a formal colloquium presentation. For more information, see www.hawaii.edu/amst/MS_home.htm.

Anthropology

College of Social Sciences
Saunders Hall 346
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8415
Fax: (808) 956-4893
Email: anthprog@hawaii.edu
Web: www.anthropology.hawaii.edu

Faculty

*C. Yano, PhD (Chair)—cultural anthropology, popular culture, ethnomusicology, cultural nationalism, emotions; Japan, Japanese Americans
*A. R. Arno, PhD (Graduate Chair)—legal anthropology, ethnography of communication, kinship and social organization; Pacific
*C. E. Peterson, PhD (Undergraduate Advisor)—archaeology, comparative study, early complex societies, regional settlement patterns, household archaeology, quantitative methods; China
*C. J. Bae, PhD—biological anthropology, paleoanthropology, vertebrate taphonomy, Out of Africa 1, modern human origins; China, Korea, Japan
*J. M. Bayman, PhD—archaeology, craft economies; North America; U.S. Southwest; Hawai‘i
*C. F. Blake, PhD—critical and interpretive theory, ethnography and biography, popular ideologies, social movements and entrepreneurship in the modern world economy; China, U.S.
J. Brunson, PhD—medical anthropology, fertility and reproduction, maternal health, new medical technologies, structural and interpersonal violence, gender, family; Nepal
*A. Golub, PhD—cultural anthropology, kinship and identity, governance, indigenous land tenure, mining and natural resources, common and intellectual property, semiotic technologies, Papua New Guinea, Melanesia, massively multiplayer online video games
*T. Hunt, PhD—archaeology, paleoenvironmental reconstruction, evolutionary theory, archaeometry, ceramics; Oceania
J. Padwe, PhD—environmental anthropology, agro-ecology; war and the environment; ethnicity; Southeast Asia (Cambodia); South America (Paraguay, Bolivia)
*M. Pietruszewsky, PhD—physical anthropology, skeletal biology, forensic anthropology; Oceania; SE and East Asia; Australia
*B. V. Roleff, PhD—archaeology; Pacific Islands, Southeast China
*E. J. Saethre, PhD—medical anthropology, indigenous health, HIV/AIDS, biomedical interventions; Aboriginal Australia, South Africa
A. M. Sakaguchi, PhD—medical anthropology, public health, medical malpractice, globalization and its impact on emerging and re-emerging diseases, health disparities, health care disparities, Japanese literature and history
*M. Stark, PhD—archaeology ecology, early village economics, ceramics, ethnarchaeology; Southeast Asia, U.S. Southwest
*T. P. K. Tengan, PhD—cultural anthropology, indigenous theory and methodology, colonialism, nationalism, identity, gender, cultural politics, Pacific, Hawai‘i
*G. M. White, PhD—cultural anthropology, history and memory, self and emotion, ethnohistorical methods; Pacific Islands; America

Cooperating Graduate Faculty

D. Brown, PhD—physical anthropology, medical anthropology; Polynesia
R. Cann, PhD—physical anthropology, anthropological genetics, human populations
W. Chapman, PhD—historic preservation, historical archaeology, history of anthropology
C. Clayton, PhD—cultural anthropology; sovereignty and colonialism; nationalism and transnationalisms; history, memory and place-making; China and East Asia
E. Drehsel, PhD—historical sociolinguistics, ethnohistory, North American Indians; North America
T. Dye, PhD—cross-cultural child and maternal health
S. Falgout, PhD—cultural and historic anthropology; Micronesia
M. Hamnett, PhD—applied policy research, economic development, research management; Oceania
P. Ho, PhD—instructional technology and design
R. Labrador, PhD—cultural anthropology, identity, immigration political economy, globalization and diaspora; Hawai‘i/Pacific, Philippines, Filipina/American and Asia Pacific America
G. G. Maskarinec, PhD—anthropology of language (Nepalese oral texts), western biomedical clinical medicine, medical education and indigenous medical systems of S. Asia; religions (belief systems, ritual and performance)
P. Mills, PhD—archaeology, culture contact, lithic analysis, ethnohistory; Polynesia, North Pacific, North America
J. Y. Okamura, PhD—ethnicity and ethnic relations, Asian American studies; Philippines; Hawai‘i
M. Sharma, PhD—political economy, development, class formation and gender relations, radical feminist theory; India

* Graduate Faculty
Affiliate Graduate Faculty

M. S. Allen, PhD—prehistory of Oceania, evolutionary, ecological, and biological theory, zooarchaeology, human paleoecology, subsistence change, prehistoric environments, exchange and interaction, Polynesian fishing technologies; Oceania, Polynesia

J. S. Athens, PhD—evolutionary and agricultural ecology, origin of agriculture, development of complex societies, tropical paleoenvironmental (Ecuador, Oceania), archaeology of Ecuador, Micronesia, and Hawai‘i, CRM issues, management and administration

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

R. A. Bentley, PhD—complexity theory, the prehistoric spread of agriculture into Europe and the effects of human interaction on cultural evolution

K. Brown, PhD—cultural anthropology; family histories; farmer production decision; religious syncretism; ethnicity and the Emperor; globalization and food, family and car culture; Japan

C. K. Cachola-Abad, PhD—archaeology, oral traditions, historic preservation, evolution; Hawai‘i and Polynesia

E. Cochrane, PhD—evolutionary theory, cultural transmission, archaeological science, Oceania, Fiji, ceramics

S. Collins, PhD—archaeology, human and faunal osteology, historic preservation compliance and practice; Hawai‘i and the Pacific

M. T. Douglas, PhD—physical anthropology, skeletal biology, bioarchaeology, paleopathology; Oceania, Southeast Asia

T. Dye, PhD—archaeology; Hawai‘i and the Pacific

J. Fox, PhD—land use, forest resources and management GIS and spatial information technology; South Asia; SE Asia

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

T. Jiao, PhD—transformation from hunting-gathering to farming, maritime adaptation, complex society, early state formation, China, southeast Asia

J. Kahn, PhD—archaeology, lithic technology, household archaeology, monumental architecture and landscapes; Hawai‘i, French Polynesia, and the Pacific

L. Lindstrom, PhD—cultural anthropology, sociolinguistics, ethnobiography, social theory; Oceania, Vanuatu

G. Marten, PhD—population dynamics, ecosystem ecology, animal behavior, statistics, mathematical modeling, population genetics

J. A. Peterson, PhD—archaeology, historical ecology, landscapes, historical archaeology, Hawai‘i-Pacific, Philippines, American Southwest

J. Silverstein, PhD—archaeology, militarism; the evolution, rise and fall of complex societies; hydraulic constructions; GIS; survey; modern military archaeology in Asia and Europe; urban archaeology; Mesoamerican; and Greco-Roman Egypt

M. Tomlinson, PhD—cultural and linguistic anthropology, religion and ritual, discourse analysis, Christianity, Fiji, Oceania

E. Wittersheim, PhD—political and urban anthropology and documentary filmmaking, nationhood and state building; Vanuatu, Melanesia, Oceania

D. Y. H. Wu, PhD—cultural anthropology, ethnicity, anthropology of food; China and Chinese diaspora

D. Yen, PhD—ethnobotany; Oceania, Southeast Asia

H. Young Leslie, PhD—cultural construction of health, medical professionals and medical systems (across time and space), midwifery, gender, the body, development, qualitative methodologies, and women’s material culture

Adjunct Faculty

J. Baker, PhD—medical and nutritional anthropology, anthropology of food, ethnopharmacology, science and technology studies; Oceania

N. I. Cooper, PhD—socio-cultural anthropology, performance, gender, expressive culture, ritual and religion; Southeast Asia, Indonesia, Java, Singapore

J. Jin, PhD—zooarchaeology, vertebrate taphonomy, human skeletal biology, forensic anthropology, paleoanthropology; China, Korea

J. Rensel, PhD—socioeconomic history, housing change, migrant communities; Polynesia

P. J. Ross, MA—quantitative methods, nutritional and medical anthropology, human ecology, medical systems, field methods in cultural anthropology; West Africa

Degrees Offered: BA (including minor) in anthropology, MA in anthropology, PhD in anthropology

The Academic Program

Anthropology (ANTH) is the comparative study of human societies, 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: archaeology, cultural anthropology, linguistic anthropology, and physical anthropology. While physical anthropologists focus upon our biological nature, cultural anthropologists deal with ways of life past and present. 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 cultural basis of human society, and 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 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. 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 152, 210, 215, 215L and 490

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 advisor.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Minor**

**Requirements**

Students must complete 15 credits of upper division anthropology courses which include one theory course and one methods course. It is highly recommended that students take ANTH 300 (Study of Contemporary Problems) to complete the theory requirement. Alternatively, they may take any 400 level course designated as a theory course by the Department of Anthropology. Students must also take one upper division course designated as a methods course by the Department of Anthropology. Courses will be chosen by the student, in consultation with the undergraduate advisor, to suit the student’s needs and interests. Courses must be completed with a grade of C (not C-) or better.

**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 (not B-) or better at least one undergraduate course in archaeology, physical anthropology, social or cultural anthropology, and linguistics. All incoming students are required to attend the Anthropology Colloquium Series in the first two semesters. Applications for admission will be considered for the fall semester only. The deadline for submission of applications, including international students, is December 1.

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) and one upper division or graduate level course in a third subfield. 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, a minimum of 18 credit hours must be taken in the department. Graduate students must maintain at least a B (3.0) average. All courses taken for degree credit must be taken for a letter grade.

**Plan A**

- 24 credit hours of course work
- Thesis (6 credit hours)
- Minimum of 12 credits in graduate level courses numbered 600 and above

**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
- Minimum of 18 credits in graduate level courses numbered 600 and above

**MA Track in Applied Archaeology**

Please consult departmental and graduate college guidelines for application instructions. Applicants to our Applied Archaeology MA program should explicitly note in their statement of purpose and other correspondence that they are applying to the MA Track in Applied Archaeology, which is a Plan B program. Students who are admitted to the applied program will be assigned an interim advisor upon their acceptance. By the end of the second semester, a student must select a committee of three anthropology faculty, one of whom will serve as her or his committee chair. A student must complete a report on original research, or three publishable papers.

Students who wish to enter the doctoral program, upon completion of the MA Track in Applied Archaeology, must reapply for admission to the anthropology program.

**Doctoral Degree**

A student completing the requirements for the MA may request admission to the PhD program by filling out a Petition for Admission to a Doctorate in Same Discipline (found on the Graduate Division website) and submitting the form to the departmental Academic Specialist. This form will be forwarded to Graduate Division based upon the approval of the Graduate Chair.

Before the Graduate Chair can formalize his recommendations, a meeting must be convened consisting of all Anthropology faculty members with whom the student has taken graduate-level courses. They will evaluate the MA thesis or three papers and review the quality of previous graduate work. The faculty will then make their recommendations to the Graduate Chair to admit or not to admit the student to the doctoral program.

Admission to the PhD program requires a two-thirds majority of favorable versus unfavorable recommendations from the Anthropology faculty members. The student will receive 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 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 shall 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 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. 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 and Art History

**College of Arts and Humanities**  
**Art 142**  
2535 McCarthy Mall  
Honolulu, HI 96822  
Tel: (808) 956-8251  
Fax: (808) 956-9043  
Email: uhart@hawaii.edu  
Web: www.hawaii.edu/art/

**Faculty**

* G. Chan, MFA (Chair)—photography  
* M. Sato, MFA (Associate Chair)—sculpture  
* L. Andrews, PhD—Western art history  
* M. Babcock, MFA—fiber  
* R. Bigus, MFA—graphic design  
* A. Bush, MFA—graphic design  
* P. Chamberlain, MFA—electronic arts  
* C. Cohan, MFA—printmaking  
* D. Drexler, MFA—drawing and painting  
* S. Groeniger, MFA—digital imaging  
* J. Hamilton, PhD—contemporary art history and theory  
* W. Kawabata, MFA—drawing and painting  
* P. Lavy, PhD—South and Southeast Asian art history  
* C. Lee, MFA—graphic design  
* K. Lingley, PhD—Chinese art history  
* R. Mills, MFA—glass, sculpture  
* F. Roster, MFA—sculpture  
* J. Stanton, PhD—Western art history

* Graduate Faculty
Degrees Offered: Undergraduate Certificate in Islamic Studies, BA in art with either a studio or Art History focus (including minor), BFA in art, MA in art history, MFA in art

The Academic Program

The Department of Art and Art History (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 (Macintosh equipped for graphic design, PCs for electronic arts), and fully equipped printmaking, sculpture, ceramics, fiber, and glass facilities. The UH 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. Visiting artist programs supplement the regular course offerings.

Advising

Advising is mandatory for all art and art history majors. For advising, see the associate chair, Mamoru Sato in Art 142A, email: mamorus@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 42 credit hours, including:

- 6 credits of art studio core: ART 113 and 116
- 12 credits of art history: ART 175, 176, and 6 credits at the upper division level
- 24 credits of art studio: 12 credits must be upper division

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Art History Focus

Students must complete 42 credit hours, including:

- 11 art history courses (33 credit hours), including ART 175 and 176
- Three studio classes (9 credit hours), selected in consultation with advisor

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

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, digital imaging, drawing, electronic arts, fiber, glass, graphic design, painting, photography, printmaking, and sculpture. Students are encouraged to cross media boundaries, and qualified students may opt to construct an individualized inter-media plan of study with faculty guidance and approval.

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

1. Completion of art studio core requirements: 113 and 116.
2. Completion of art history core requirements: ART 175 and 176.
3. Completion of one 200-level studio elective not in student’s chosen area.
4. Completion of a minimum of 9 credit hours in chosen area with an average of B (not B-) or better.
5. Completion of 18 credits in UH Mānoa core requirements exclusive of art department courses.

Applications for review are due by the end of the third week of the semester.

Requirements

Students must complete 63 credit hours, including:

- Seven courses in one of the 11 program areas as indicated at the time of declaration (last 9 credit hours must be completed at UH Mānoa)
- Two art studio core courses (6 credit hours): ART 113, 116
- Three art history core courses (9 credit hours): ART 175, 176, 302
- Four art history elective courses (12 credit hours)
- Five art elective courses (15 credit hours)

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.
Minor

Requirements
- 21 credits in art, 15 of which must be from non-introductory courses

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

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

Undergraduate Certificate in Islamic Studies
The purpose of this certificate is to increase understanding of Islam as a world religion through critical analysis of primary and secondary materials, to foster knowledge about the complexity among Islamic societies and their diverse cultural expressions, and to explore the role of Islam and Muslims in present and past world affairs.

This certificate is housed within the College of Arts and Humanities. The participating departments are Art and Art History, History, Philosophy, and Religion. Minimum prerequisites for acceptance into the program for undergraduates are sophomore or higher standing with a minimum GPA of 2.5 and the completion of at least one introductory course within one of the four participating departments with a grade of B or better.

A more complete description and the requirements are described under the Department of Philosophy.

Graduate Study
The Department of Art and Art History 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 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 directly to the art department prior to the application deadline.

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 36 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

In either plan up to 9 credits, with advisor’s approval, may be earned in appropriate advanced courses in other UH Mānoa 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 or they will be dismissed from the program. Students must also demonstrate a reading knowledge in a foreign language appropriate to their field of specialization, chosen in consultation with the area advisor. For more information on the MA in art history, contact Paul Lavy, PhD, email: paullavy@hawaii.edu.

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 arts, fiber, glass, 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 and Art History 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 transcript of 25% or more nontraditionally graded undergraduate or graduate credit hours must submit GRE scores and course performance report forms.

Supporting material of 20 samples of original work should be submitted on a cd (still images in jpeg format, no more than 1.5 mb each and video samples in .mov format) that illustrates 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 and Art History. 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. Those failing must successfully pass on their second attempt or they will be dismissed from the program.

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 with 6 credits each in ART 611, 612, 613, 614. Conditional or unclassified graduate students may enroll only in ART 611 for a maximum of 6 credits. Consent of instructor is required.
- 15 credits of electives, including ART 699 (not more than 9 credits)
- 6 credits of two art history courses (numbered 300 or above)
- 3 credits of ART 690
- 12 credits of 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 9 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 UH Mānoa 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 advisor. For more information on the MFA program, contact gradart@hawaii.edu.

Astronomy

College of Natural Sciences
Watanabe 416
2505 Correa Road
Honolulu, HI 96822
Tel: (808) 956-7087
Fax: (808) 956-7107
Email: grad-chair@ifa.hawaii.edu
Web: www.ifa.hawaii.edu/gradprog

Faculty

* D. B. Sanders, PhD (Graduate Chair)—infrared and millimeter astronomy
* C. Aspin, PhD—star formation
* J. Barnes, PhD—theoretical astronomy
* F. Bresolin, PhD—stellar astronomy
* K. Chambers, PhD—extragalactic astronomy
* M. R. Chun, PhD—adaptive optics
* P. Coleman, PhD—cosmology
* A. S. Cowie, PhD—interstellar matter
* L. L. Cowie, PhD—extragalactic astronomy
* C. Ftaclas, PhD—instrumentation
* S. R. Habbal, PhD—solar and heliospheric physics
* D. N. B. Hall, PhD—infrared astronomy
* G. Hasinger, PhD—X-ray astronomy
* J. N. Heasley, PhD—stellar photometry
* J. P. Henry, PhD—galaxy clusters
* K. Hodapp, PhD—infrared astronomy
* E. M. Hu, PhD—extragalactic astronomy
* R. Jedicke, PhD—asteroids
* R. Joseph, PhD—infrared astronomy
* N. Kaiser, PhD—theoretical astronomy
* L. Kewley, PhD—extragalactic astronomy
* R-P. Kudritzki, PhD—stellar astronomy
* J. R. Kuhn, PhD—solar astrophysics
* H. Lin, PhD—solar physics
* M. Liu, PhD—stellar astronomy
* K. Meech, PhD—planetary astronomy
* R. Mendez, PhD—star formation
* T. Owen, PhD—solar system astronomy
* B. Reipurth, PhD—star formation
* I. I. Roussev, PhD—solar physics
* I. Szapudi, 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
* J. Williams, PhD—submillimeter astronomy
* C. G. Wynn-Williams, PhD—infrared astronomy

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. UH Mānoa’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 UH Mānoa is guaranteed access to them. The Institute for Astronomy of UH Mānoa 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

Most students entering the astronomy graduate program do so with the goal of achieving the PhD degree, but they must first obtain an MS degree unless they already have a closely-related master’s degree from another university.

Applicants to the Astronomy Graduate Program should normally have a bachelor’s degree in physics, astronomy, or a related field. Requirements for admission include 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. We require the GRE General Test, and the subject test in physics.

In selecting applications for entry to the astronomy program, we pay attention to high academic achievement, especially in physics, and to the letters of recommendation. Research experience at the undergraduate level is extremely valuable.
Master’s Degree

The program offers both the Plan A (thesis) and Plan B (non-thesis) MS degrees, but almost all students opt for the Plan B program as it dovetails better with the requirements of qualification for PhD candidacy. The only real advantage of the Plan A masters is that it can be completed within four semesters; it is therefore of interest only to those students who want to get a terminal masters degree in the minimum time.

Requirements

All MS students must take 30 credits of graduate level astronomy courses unless substitution is approved by the graduate chair. They must include ASTR 633 (Astrophysical Techniques) and at least three credits of ASTR 734-736. Plan A students must complete a thesis in accordance with UH Mānoa regulations, while Plan B students must pass the final examination (which is also the PhD qualifying examination) and satisfactorily complete at least one directed research project as judged by the qualifying exam committee.

Doctoral Degree

Besides the course work required for the MS degree, PhD students are expected to undertake two directed research projects during their first two years, and present the results to the faculty both as a written report and an oral presentation. Students must pass the Qualifying Exam Assessment (which also serves as the Plan B MS degree final exam) by the end of their 5th semester in the astronomy graduate program.

Requirements

Students who bypass the MS degree (because they already have an MS degree) must register for at least 3 credits of astronomy coursework in each semester prior to the semester in which they will take the qualifying exam assessment; they must also take at least three credits of ASTR 734-736.

Students must pass the comprehensive exam, which takes the form of an in-depth review of the dissertation proposal, and achieve PhD candidacy by the end of their 6th semester in the astronomy graduate program. Finally, students must research, write, and defend a dissertation on a subject approved by their committee.

Biology

College of Natural Sciences
Dean 2
2450 Campus Road
Honolulu, HI 96822
Tel: (808) 956-8303
Fax: (808) 956-4745
Email: biology@hawaii.edu; mbiology@hawaii.edu
Advising Email: bioadvis@hawaii.edu
Web: manoa.hawaii.edu/biology/

Faculty

C. Womersley, PhD (Chair)—environmental physiology, biochemical adaptation, parasitology
C. L. Hunter, PhD (Director of B.S. Marine Biology and Marine Option Programs)—marine biology, coral reef ecology
H. Ako, PhD—aquaculture, environmental biochemistry and biotechnology
M. Alam, PhD—microbial physiology and biotechnology
W. W. L. Au, Ph.D—marine bioacoustics and echolocation
M. Berry, Ph.D—Selenoprotein synthesis
J. P. Bingham, Ph.D—peptide synthesis, marine neurotoxins
C. Birkeland, Ph.D—coral reef biology, fisheries
D. Borthakur, Ph.D—plant-microbe interaction, plant biotechnology
J. H. Brock, Ph.D—invertebrate zoology, reef ecology, polychaetes
S. M. Callahan, Ph.D—bacterial genetics
R. L. Cann, Ph.D—evolutionary genetics, MtDNA, molecular phylogenetics
D. Carlson, Ph.D—evolution, population biology, invertebrate biology
D. A. Christopher, Ph.D—photosynthesis, photosensory signal transduction, gene regulation, genomics
S. Conant, Ph.D—ornithology, ecology, behavior, conservation biology
K. Cole, Ph.D—ichthyology, behavioral ecology, reproductive biology, morphology and morphogenesis, space biology
C. C. Dachler, Ph.D—population biology, invasive plants, plant herbivore interactions
H. G. de Couet, Ph.D—molecular genetics and cytoskeleton
S. P. Donachie, Ph.D—marine microbiology and microbial diversity
D. C. Duffy, Ph.D—conservation, restoration ecology
L. A. Freed, Ph.D—evolutionary and behavioral ecology, ornithology, conservation biology
E. G. Grau, Ph.D—comparative endocrinology, environmental physiology
M. G. Hadfield, Ph.D—reproduction and development of invertebrates
D. S. Haymer, Ph.D—molecular genetics of Diptera
K. N. Holland, Ph.D—physiology, behavior, ecology of aquatic organisms
P. J. Jokiel, Ph.D—coral reef biology, biogeography and ecology
S. C. Keeley, Ph.D—molecular systematics, evolution in island systems
C. M. Kinoshita, Ph.D—process engineering, bioenergy, bioremediation
T. W. Lyttle, Ph.D—structure of Drosophila heterochromatin, evolution of chromosomal rearrangements
M. Merlin, Ph.D—biogeography, natural history of the Pacific
C. W. Morden, Ph.D—molecular systematics and evolution of plants and algae
P. E. Nachtigal, Ph.D—behavior and sensory processes of marine mammals

* Graduate Faculty
Degrees Offered: Undergraduate Certificate in Mathematical Biology, BA (including minor) in biology, BS in biology, BS in marine biology

Undergraduate Study

BA Degree in Biology

Requirements (C [not C-] grade minimum)
- BIOL 171, 172, 265, 275, and 375 plus laboratories
- 20 credit hours in approved courses, including one each from botany, microbiology, physiology, and zoology, and one or more laboratory courses at the 300 level or above

Related Requirements (C [not C-] grade minimum)
- CHEM 161, 162, 272 plus laboratories and 273
- PHYS 151 and 152 or 170 and 272 plus laboratories
- MATH 215 or 241 or 251A

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_biology.asp#BIOL_SCHED.

BS Degree in Biology

Requirements (C [not C-] grade minimum)
- BIOL 171, 172, 265, 275, and 375 plus laboratories
- One course each from morphology/systematics and physiology
- BIOC 441 or BIOL 402
- 15 credit hours in approved courses in one of the following tracks or concentrations:
  - cell/molecular biology
  - ecology, evolution and conservation biology
  - general biology
  - marine/aquatic biology
  - organismic biology
- 1 credit 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 (C [not C-] grade minimum)
- 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 or 251A and 252A
- ECON 321 or NREM 310 or MATH 243

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BS Degree in Marine Biology

Requirements (major of 2.5 GPA or higher)
- BIOL 171, 172, 265, 275, and 375 plus laboratories
- OCN 201
- BIOL 301 plus laboratory
- ZOOL 439
- BOT 480
- ZOOL 475 plus laboratory
- BIOL 402 or BIOC 441
- MICR 401 plus laboratory
- BIOL 403 or 4 credits of directed research in approved disciplines
BIOL 404
2 credits of directed research in approved discipline
6 credit hours in approved courses

Related Requirements (major of 2.5 GPA or higher)
- CHEM 161, 162, and 272 plus laboratories and 273
- PHYS 151 and 152 or 170 and 272 plus laboratories
- MATH 215 and 216 or 241 and 242 or 251A and 252A
- ECON 321 or NREM 310

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_biology.asp#BIOL_SCHED

Minor in Biology

Requirements (C [not C-] grade minimum)
Students must complete BIOL 265/265L, 275/275L, and 375/375L; and a minimum of 3 credits from the following:
- BIOL 301/301L, 331, 363, 390, 395, 401, 402, 407, 408/408L, 425, and 499
- Approved upper level botany, biochemistry, microbiology, physiology, and zoology courses

Undergraduate Certificate in Mathematical Biology

The purpose of the certificate is to induce students to pursue the interdisciplinary study of biology and mathematics together with research. The coursework will be similar to, but less than, that required to receive a minor in mathematics or biology. However, the students will also have to do a substantial amount of research in addition to the coursework. The emphasis in the certificate is different, however, in that the majority of the work is interdisciplinary.

Students will be considered accepted into the Mathematical Biology Certificate Program upon formal request for acceptance and completion of either MATH 304 or 305 with a grade of C or better. To receive the certificate, students must complete 15 credits of approved coursework with no grade below a C and attain a GPA of 2.5 in the collection of courses used to satisfy the certificate requirements. Due to the interdisciplinary nature of the certificate, 6 credits of required electives will differ depending on a student’s major. Courses used towards the certificate can only be double-dipped with focus requirements.

Prerequisites to the Certificate
- BIOL 171 (lab not required)
- CHEM 161 or 171 (lab not required)
- Year of calculus (MATH 215/216, MATH 241/242, MATH 251A/252A)
- Electives may have additional prerequisites

Requirements for the Certificate (15 credits)
- Required courses (9 credits): MATH 304, 305, MATH/BIOL 490 (capstone)
- Math majors (6 credits): BIOL 172, and 265 or 275 (lab not required)
- Life science majors (6 credits): two courses selected from MATH 243/253A, 301, 302, 303, 307, 311, 371, 373, 402, 403, 407, 414, 416, 471, 472
- Other majors: completion of above required courses, and at least 6 credits of electives approved by the Committee

Participate in an interdisciplinary Mathematical Biology research project is required. These projects must be substantial, requiring at least the effort of a 5 credit 400-level course; examples include a senior honors research project, summer Research Experiences for Undergraduate programs, and the Undergraduate Biology and Mathematics Research Program; students are advised to discuss their projects with an advisor from the Mathematical Biology Certificate Coordinating Committee before commencing. A research paper based on this research project must be submitted to and approved by the Committee. Students are expected to present their research at an approved symposium or conference.

Botany

College of Natural Sciences
St. John 101
3190 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8369
Fax: (808) 956-3923
Web: www.botany.hawaii.edu

Faculty
*A. R. Sherwood, PhD (Interim Chair; Graduate Chair)—systematics, evolution and biogeography of algae
A. S. Amend, PhD—evolutionary ecology
K. A. Barton, PhD—evolutionary ecology
C. C. Daehler, PhD—population biology, invasive plants, plant-herbivore interactions
D. R. Drake, PhD—seed ecology and conservation of Polynesian plants
D. C. Duffy, PhD—conservation, restoration ecology
N. A. Hynson, PhD—community ecology
S. C. Keeley, PhD—molecular systematics, evolution in island systems
M. Merlin, PhD—biogeography, ethnobotany, natural history of the Pacific
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
T. B. Ticktin, PhD—ethnoecology, conservation
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
C. Dunn, PhD—conservation, habitat restoration
C. L. Hunter, PhD—reef ecology
R. Ostertag, PhD—ecology

Affiliate Graduate Faculty
D. A. Burney, PhD—conservation
J. Canfield, PhD—ecology and conservation biology

* Graduate Faculty
S. Cordell, PhD—ecology, ecophysiology, restoration ecology
S. James, PhD—plant ecology, systematics, phycology
L. L. Loope, PhD—ecology, conservation of rare and endangered species (Maui)
D. H. Lorenz, PhD—systematics of flowering plants (Kaua‘i)
J. Polovina, PhD—ethnobotany, marine algae
L. Sack, PhD—physiology and ecology of species co-existence; structure/function; hydraulics
P. Vroom, PhD—phyiology

**Adjunct Faculty**
A. K. Chock, MS—Hawaiian ethnobotany
D. R. Herbst, PhD—endangered and threatened Pacific flora, plant morphology

**Retired Faculty In Residence**
K. W. Bridges, PhD—systems ecology, ethnobotany
D. Mueller-Dombois, PhD—ecology
C. Smith, PhD—conservation, Hawaiian lichens

**Degrees Offered:** BA (including minor) in botany, BS in botany, MS in botany, PhD in botany

**The Academic Program**

UH Mānoa has the only botany department (BOT) located in a tropical environment in the U.S. 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 humans. 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 and a bachelor of science degree in ethnobotany; 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 website at 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 U.S. 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 U.S. 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 advisor 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 student’s committee and the graduate program chair 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 in Botany**

The BA degree provides students flexibility to pursue a broad liberal arts education 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

- Students must earn a grade of C (not C-) or higher in each course applied to the major, including required courses in Chemistry, Physics, and Math
- 4 credits required seminars: BOT 100, 200, 300, 400
- 42 credits of the following:
  - BOT 101/101L
  - BOT 201/201L
  - BOT 202/202L
  - BOT 203
  - BOT 301/301L
  - BOT 302
  - BOT 420
  - BOT 462
  - BIOL 171/171L
  - BIOL 275/275L
  - BIOL 375/375L
- Minimum 9 credits of Electives
  - Two of either BOT 401, 450, or 499
  - One of BOT 430/430L, 454, 456, 461, or 480

Any of the following to fulfill minimum total credit requirement of 55 credits of Botany and Biology: BOT 350, 430/430L, 444, 453, 454, 456, 461, or 480
- 27 credits of other required courses: CHEM 161/161L, 162/162L, 272/272L, PHYS 151/151L, 152/152L, MATH 215 (or higher), and MATH 216 (or higher)

Prospective majors should consult the department promptly to design a curriculum that satisfies these requirements. BOT 135 and 160 do not fulfill major requirements.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BS Degree in Botany

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

- Students must earn a grade of C (not C-) or higher in each course applied to the major, including required courses in Chemistry, Physics, and Math
- 4 credits required seminars: BOT 100, 200, 300, 400
- 42 credits of the following:
  - BOT 101/101L
  - BOT 201/201L
  - BOT 202/202L
  - BOT 203
  - BOT 301/301L
  - BOT 302
  - BOT 420
  - BOT 462
  - BIOL 171/171L
  - BIOL 275/275L
  - BIOL 375/375L
- Minimum 9 credits of Electives
  - Two of either BOT 401, 450, or 499
  - One of BOT 430/430L, 461, or 480

Any of the following to fulfill minimum total credit requirement of 55 credits of Botany and Biology: BOT 350, 430/430L, 444, 453, 454, 456, 461, or 480
- 27 credits of other required courses: CHEM 161/161L, 162/162L, 272/272L, PHYS 151/151L, 152/152L, MATH 215 (or higher), and MATH 216 (or higher)

Prospective majors should consult the department promptly to design a curriculum that satisfies these requirements. BOT 135 and 160 do not fulfill major requirements.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BS Degree in Ethnobotany

The BS in ethnobotany provides a unique learning environment in which biological and social science theories are integrated. Study in ethnobotany will enable students to work in areas related to the conservation of biological and cultural diversity, work in natural health care businesses and practices, enter graduate school programs in ethnobotany, botany, anthropology, and related fields or enter advanced medical training programs.

Requirements

- 4 credits required seminars: BOT 100, 200, 300, 400
- 42 credits of the following:
  - BOT 101/101L
  - BOT 105
  - BOT 201/201L
  - BOT 202/202L
  - BOT 301/301L
  - BOT 399/499
  - BOT 420
  - BOT440
  - BOT 461
  - BIOL 171/171L
  - BIOL 275/275L
  - BIOL 375/375L
- 9 credits of Electives
  - Two of either: BOT 442, 444, 446, 448, or BIOL 440
  - One other 400 level BOT course
  - 12 credits other elective courses
    - Two 400-level social science courses in ANTH, GEOR, HWST, or other culture-focused courses not applied to other requirements in the Ethnobotany degree program
    - Biogeography: two of either: BIOL 320, 360, 410, GEOR 309, 408, 409, 422, 426 or other biogeography course
    - Other required courses: CHEM 161/161L, 162/162L, 272/272L, PHYS 151/151L, PHYS 152/152L, MATH 215, and MATH 216

Prospective majors should consult the department promptly to design a curriculum that satisfies these requirements. BOT 135 and 160 do not fulfill major requirements.
Minor

Requirements
Students must complete 15 credit hours in non-introductory courses with a grade of C (not C-) or higher.

For ethnobotany:
- BOT 440 and 461
- Two of: BOT 442, 444, 446, or 448
- One 400 level Social Science course that forms part of an ethnobotany theme with the other courses

For evolutionary botany:
- BOT 201/201L and 462
- Electives: BOT 420, 430, 450, 461, or 480

For tropical field botany:
- BOT 453
- Electives: BOT 201/201L, 450, 454, and 461

Individual programs may be designed by the student and advisor 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 within 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 listing of faculty members and their research areas and publications is available on the department website: www.botany.hawaii.edu. Applications for admission and opportunities for financial aid and support are available upon request.

At the time of application, three letters of recommendation from persons who can appraise the student’s aptitude for advanced work are required. In their statement of objectives, applicants should identify a specific area of study within botany: conservation, ecology, ethnobotany, general botany, marine botany, systematics/evolution, or whole plant biology. Minimum curriculum requirements for each track are available at the department website. Applicants will be evaluated for their level of preparation and potential to successfully complete their proposed plan of study. Application deadlines are January 15 for fall 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.

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 BOT 610 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 intending a research-related career. Plan B is for students who do not intend to make research in botanical sciences their profession. Both plans require students to take a comprehensive written exam in general botany.

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.

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 (excluding BOT 699 and BOT 700). 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 a combination of oral and written parts. The former 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
College of Natural Sciences
Bilger 239
2545 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-7480
Fax: (808) 956-5908
Email: office@gold.chem.hawaii.edu
Web: www.manoa.hawaii.edu/chem

Faculty
* K. K. Kumashiro, PhD (Chair)—physical chemistry, solid-state nuclear magnetic resonance of proteins and peptides
* P. G. Williams, PhD (Associate Chair)—organic and natural products chemistry
W. J. Chain, PhD—organic chemistry, synthesis of natural products
* J. D. Head, PhD—theroretical chemistry, electronic structure determination of large molecules and clusters
* T. K. Hemscheidt, PhD—organic and bioorganic chemistry, biosynthesis of natural products
* J. T. Jarrett, PhD—biochemistry, enzymology, structure and function of metalloenzymes
* C. M. Jensen, PhD—inorganic and organometallic chemistry, polyhydride and dihydrogen metal complexes, homogeneous catalysts, hydrogen storage materials
T. Jovanovic-Talisman, PhD—nuclear pore complex, super-resolution microscopy
* R. I. Kaiser, PhD—physical chemistry, reaction dynamics, chemistry in extraterrestrial environments
* O. Navarro Fernandez, PhD—organometallic chemistry, transition metal complexes and their applications in organic synthesis and polymer chemistry
H. L. Ng, PhD—membrane protein crystallography
* M. A. Tius, PhD—organic chemistry, synthesis of natural products
* D. A. Vicic, PhD—transition metal chemistry, selective and catalytic transformations, synthetic organometallic and inorganic chemistry, bioinorganic coordination chemistry

Cooperating Graduate Faculty
C. J. Simmons, PhD—inorganic chemistry, metal-dioxygen and Jahn-Teller copper complexes, structure determination by X-ray crystallography

Degrees Offered: BA (including minor) 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. Chemists create new substances with new properties that find application throughout our civilization.

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 CHEM courses numbered 200 and above, including CHEM 272/272L, 273/273L, 274/274L, 351, 352/352L, and either 425/425L or 445/445L
- MATH 243 (Calculus III) or 253A
- PHYS 170/170L, and 272/272L
- Recommended languages: German, French, Russian, or Japanese

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_chem.asp#CHEM_SCHED.

BS Degree
Requirements
- 41 credit hours in CHEM courses numbered 200 and above, including CHEM 272/272L, 273/273L, 274/274L, 351, 352/352L, 372 or BIOL 402/MBBE 402/PEPS 402 or BIOC 441
- A minimum of three credits from CHEM 399, 601, 602, 622, 641, 642, 643, 651, 653, or 657
- MATH 243 (Calculus III) or 253A
- PHYS 170/170L and 272/272L
- Recommended electives: MATH 244 and PHYS 274
- Recommended languages: German or French

To view a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_chem.asp#CHEM_SCHED.

* Graduate Faculty
Minor
Requirements
- 17 credit hours in CHEM 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 the PhD must take the GRE General Test.

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 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 UH Mānoa. Courses are selected from acceptable graduate courses in chemistry listed in 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 website.

Communication
School of Communications
College of Social Sciences
Crawford 320
2550 Campus Road
Honolulu, HI 96822
Tel: (808) 956-8715
Fax: (808) 956-5396
Email: comm@hawaii.edu
Web: www.communications.hawaii.edu

Faculty
*T. Kelleher, PhD (Chair)—public relations, social media
*K. Kawamoto, PhD (Graduate Chair)—digital media/health communication
*M. Moody, MFA (Undergraduate Chair)—video and film production
*A. Auman, PhD—journalism, organizational communication
*W. Buente, PhD—information and communication technologies
*G. Fontaine, PhD—intercultural and organizational communication
G. Kato, MA—broadcast news, law, reporting
*J. I. Kim, PhD—communication theory and research, development communication, network analysis, diffusion of innovations
*D. Pike, PhD—journalism, critical analysis of media
*J. Winter, PhD—emerging communication technology and policy

Cooperating Graduate Faculty
J. C. Ady, PhD—organizational communication
A. R. Arno, PhD—communication law, ethnography of communication
T. Brislin, PhD—mass communication, ethics
C. Ho, PhD—communication technologies
D. Lassner, PhD—telecommunication, public relations
N. Okamura, PhD—telecommunication
M. Shapiro, PhD—political science
K. Tokuno, PhD—intercultural, human and organizational development

Affiliate Graduate Faculty
C. Clarke, MA—intercultural organizational intervention
W. Dissayanke, PhD—intercultural counseling
P. Pedersen, PhD—intercultural, counseling
S. Wu, PhD—mediated interpersonal communication

Degrees Offered:
BA in communication, MA in communication, PhD in communication and information sciences (interdisciplinary), Graduate Certificate in Telecommunications Information Resource Management

* Graduate Faculty
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 active learning and inquiry in fundamental communication processes with specific emphasis on media arts (digital cinema and multimedia), communication in communities (local, global, organizational, and intercultural), and information and communication technologies (ICTs) 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, and computer-communication laboratory. 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 advisor. In addition, an undergraduate chair provides 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 advisor 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 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 one or more of three areas of concentration: media arts, communication and communities, and ICTs and policy.

Bachelor’s Degree

Requirements

Students must complete 33 credit hours of communication courses, including the following:

- Introduction to Communication (COM 201)
- three foundation courses (COM 310, 320, and 330)
- one capstone course (COM 476, 477, 478, or 479)

To declare a major in communication, students must be enrolled in, or have completed with a B (3.0) or better Introduction to Communication (COM 201) and have completed at least 12 credit hours with a 2.5 GPA. Upon declaration of their major, students are assigned a personal faculty advisor 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. Students are also responsible for meeting the prerequisite requirements for at least one of the capstone courses in order to graduate in a timely manner. Students must earn a C (2.0) or better in every course counted toward the major degree requirements.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Graduate Study

Master’s Degree

The School of Communications offers a graduate program leading to the MA degree in communication. The program areas of specialization reflect the expertise of our graduate faculty in organizational and intercultural communication, global communication, information and communication technologies, social media, and communication policy and planning. Both individual faculty members and the program as a whole work within sociocultural and sociotechnical perspectives. The goal of our program in terms of student learning is to help our students build and exchange knowledge in areas relevant to the broad field of communication and to our specific areas of specialization.

Qualified applicants are admitted to the program in the fall semester only. Applicants are not required to have an undergraduate communication degree. All applicants must fulfill the UH Mānoa Graduate Division’s admission requirements. Applicants to the program must submit to the school a statement of academic objectives and the planned role of our program in helping meet those objectives. Applicants must also arrange for three letters of recommendation to be sent to the school. These letters should be written by persons who are familiar with the student’s academic accomplishments. Letters from former professors are preferred. Students applying from non-English-speaking countries must have a minimum TOEFL score of 600 (paper-based) or 250 (computer-based). Applicants whose academic objectives match our program specializations will be admitted as classified students on a space-available basis.

Each classified student admitted into our program is assigned an interim advisor who assists the student in the initial planning of his or her degree program. The student may, at any time, change that advisor by informing the program staff of the change. Once the student has selected a thesis or practicum committee chair (see below) that faculty member becomes his or her permanent advisor. The student remains, however, primarily responsible to ascertain that all program requirements are met in a timely fashion.

Each student must complete a minimum of 33 credits with at least a 3.0 grade point average. These credits are to be distributed by taking:

- Both foundation courses 611 Communication Theories and 612 Communication Inquiry (6 credits).
- Two core courses (6 credits) from our specializations in Organizational and Intercultural Communication (623 and 643), Telecommunication and New Media (633 and 634), or Global Communication and Journalism (644).
- One seminar 691 (3 credits) (repeatable up to 6 credits).
- One capstone activity (6 credits) selected from 700 (Plan A-Thesis) or 695 (Plan B-Practicum).
- The remaining 12 credits are selected from: additional core courses, advanced courses 646 and 660; courses
from the school’s Graduate Certificate Program in Telecommunication and Information Resource Management (TIRM) 680, 681, 682, 683, 684; Directed Research 699; 400-level augmented undergraduate courses, or graduate courses outside the program (both the latter require approval of committee chair; maximum 6 credits).

Each student is expected to take at least one 3-credit course or seminar each semester. All substitutions, exceptions, and/or courses external to the program must be approved by the thesis or practicum committee chair and noted in the student’s official records. If students are not enrolled for courses during a semester they must apply for an official leave of absence. In pursuit of their academic goals students often earn more than the minimum 33 credits. The program can be compressed into 15 months or stretched out over 60 months. Typically, however, students complete the program in 18 to 24 months.

On completing 611 and achieving a 3.0 grade average in all completed coursework, each classified student is eligible for admission to candidacy allowing him or her to formally identify a degree plan from the two options available. These options are to complete either a thesis (Plan A) or practicum (Plan B) as his or her capstone activity. At the same time the student selects the chair and members of the thesis or practicum committee. That committee is responsible for supervising and evaluating the student’s thesis or practicum activity. The committee must be comprised of at least three members of the graduate faculty from the university with at least two of those members and the chair from our program. Both the committee members and the topic of the activity must be approved by the Graduate Division and research to be conducted approved by the university’s Institutional Review Board (IRB). At the completion of the student’s program, he or she must take a two-hour oral exam on their knowledge of the field and defense of their thesis or practicum report.

For further information please visit our website at www.communications.hawaii.edu/com/graduate/.

**Doctoral Degree in Communication and Information Sciences**

The School of Communications is one of the academic programs that participates in an interdisciplinary doctoral program in Communication and Information Sciences (CIS). See the “Interdisciplinary Program” section for more information on that program.

**Communicology (formerly Speech)**

College of Arts and Humanities
George 326
2560 Campus Road
Honolulu, HI 96822
Tel: (808) 956-8202
Fax: (808) 956-3947
Email: COMG@hawaii.edu
Web: manoa.hawaii.edu/communicology

**Faculty**

*R. K. Aune, PhD (Chair)—message and information processing, natural language processing, research methods
*A. S. E. Hubbard, PhD (Graduate Chair)—nonverbal communication, conflict and relational management, research methods
*W. F. Sharkey, PhD (Undergraduate Chair)—family communication, interpersonal, conflict management, interviewing and interrogation
*K. S. Aune, PhD—relational management, emotion
*R. Boller, EdD—argumentation and debate, public speaking, interpersonal and intercultural communication, leadership
*R. E. Cambra, PhD—interpersonal and instructional strategies, negotiation, intercultural
J. L. Dibble, PhD—interpersonal communication, persuasion, message processing, research methods
*J. H. Kim, PhD—social influence, intergroup conflict, social network analysis
*M. S. Kim, PhD—intercultural communication, persuasion and social influence
*H. Lee, PhD—health communication, campaigns, persuasion and social influence
*H. E. Lee, PhD—research methods, intercultural communication, organizational communication
J. Sur, MA—public presentations, interpersonal and persuasive communication
R. Tokunaga, MA—communication technology in the communication process; media effects; statistical methods

**Degrees Offered:** BA (including minor) in communicology, MA in communicology

**The Academic Program**

The Department of Communicology (formerly Speech) (COMG) has as its primary objectives the development of knowledge in and instruction concerning the process of communication. This involves three fundamental areas of emphasis. The first area is human message processing, which involves understanding the function and structure of the various codes, verbal and nonverbal, used to form messages in communication as well as examining the encoding and decoding processes involved in communication. The second area is relational communication, which focuses on factors that influence growth, maintenance, and termination of relationships. The third area, social influence, deals with the processing of beliefs, attitudes, and behavioral modification, including gaining compliance, conflict resolution, persuasive campaigns, and propaganda.
Communicology is predominantly a discipline of systematic, purposeful thinking, and communicating. Students obtain a liberal education of considerable breadth and depth in regard to communication theory. Furthermore, they are afforded ample opportunity to develop their communicative skills by applying theory in such diverse activities as interviewing, persuasion, group discussion, organizational communication, conflict management, intercultural communication, public speaking, relational communication, deceptive communication, and health communication. Indeed, the basic philosophy of this department—and it is stressed in every course and co-curricular program offered—is that there is no surer preparation for professional life and participation in society than an education that enhances the ability of the individual to maintain lifelong learning and the skills to communicate effectively.

Undergraduate Study

Bachelor’s Degree

Requirements

Students must complete 33 credit hours, including:

- COMG 251, 301, 302, 364, 371, and 381
- 5 upper division elective courses

COMG 301 and 302 should be taken no later than the semester after the major is declared. In residence policy: A minimum of 15 credit hours which includes COMG 302, must be taken in the Department of Communicology at UH Mānoa. Introductory courses do not count as electives. Electives must have a prerequisite or be numbered 300 or above and only three (3) credit hours of COMG 399 or COMG 499 (or a combination of the two classes) may be applied to the major degree.

Also up to three (3) credit hours of COMG 453 may be applied to the communicology major degree.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Minor

Requirements

Students must complete 15 credit hours of communicology, including:

- COMG 364, 371, and 381
- 2 upper division elective courses
- Introductory courses, COMG 399, and COMG 499 do not count toward the minor. Electives must have a prerequisite or be numbered 300 or above and cover a specific content area.

Graduate Study

Master’s Degree

The Department of Communicology offers an innovative MA program emphasizing the central processes and functions of human communication. To that end, course work, seminars, and student research develop a cross-situational understanding of theory and research in the three areas central to the discipline: message processing, relational communication, and social influence. In addition, given our cultural and geographical advantages at UH Mānoa, the Department of Communicology excels in teaching and research in intercultural communication.

All applicants for the MA program in communicology must supplement the application and transcripts required by the Graduate Division with three letters of recommendation (preferably from professors with whom the applicant has worked), a one-page statement of goals, and the GRE General Test scores. These supplementary items should be sent directly to the department.

Intended candidates for the MA should have a strong undergraduate preparation in communication or a closely allied discipline. Students who lack this preparation must make up deficiencies either before or during graduate study. In the latter case, the student will be admitted conditionally, pending removal of the deficiencies.

Further details on the program and the faculty, as well as any changes in course offerings, may be requested from the department.

Requirements

The department offers both Plan A (thesis) and Plan B (non-thesis: applied project or comprehensive exams) programs. Plan A requires a minimum of 33 credit hours of graduate work, at least 27 of which must be in communicology courses numbered 600 and above, including 6 credit hours of COMG 700 Thesis Research. Plan B requires a minimum of 33 credit hours of graduate work in courses numbered 600 and above including 3 credit hours of COMG 500 Master’s Plan B. Communicology courses numbered 400 to 499 and courses from allied disciplines may be counted toward the degree only with prior consent of the graduate chair. COMG 601 an 602 are required for both Plan A and Plan B programs. Plan A also requires COMG 702 (COMG 620 does not count towards the degree).

Successful completion of Plan A requires each candidate to present an acceptable thesis and pass a final oral examination based on the thesis. Plan B requires each student either complete an applied research project or pass written comprehensive exams. Plan B candidates must also pass a final oral examination based on either the research project or the comprehensive exams.
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: www.hawaii.edu/eall/

Faculty

*M-B. Yue, PhD (Chair)—20th century Chinese literary and cultural studies, visual culture and media studies, transnational Chinese writings, constructions of Chineseness and diasporic consciousness in Asian-American, exile, and immigrant writings, theories of ideology and representation, feminism, psychoanalysis, film criticism, [Inter-Asia] cultural studies

S. Chang, MA—Korean language teaching

*S-Y. Cheon, PhD—Korean phonology and phonetics, second language phonology, content-based instruction (CBI), and media-based instruction

*J. R. Cohn, PhD—Japanese literature, especially comedy and modern fiction; and bibliography

*H. M. Cook, PhD—Japanese linguistics, sociolinguistics, discourse analysis and pragmatics; language socialization

S. A. Curry, PhD—Japanese language teaching

*S. Fukuda, PhD—syntax, lexical semantics and their interface phenomena in Japanese, experimental approaches to syntax and lexical semantics, syntax of understudied Asian languages (Vietnamese and Burmese), first language acquisition of syntax-lexical semantics interface phenomena in Japanese and Korean

S. H. Hirate, MA—Japanese language teaching

C. I. Hitosugi, PhD—Japanese language teaching

*H-I. Hsieh, PhD—Chinese language, linguistics, and culture; mathematical linguistics; semantics; cognitive grammar

*R. N. Huey, PhD—classical Japanese literature (especially waka)

*K. K. Ito, PhD—modern Japanese literature, particularly fiction of the Meiji period (1868-1912); cultural studies, narratology, and reception studies

T. Iwai, PhD—Japanese language teaching

H. J. Jeong, PhD—Korean language teaching

*S. Jiang, PhD—Chinese language and linguistics, cognitive linguistics, Chinese historical syntax, Chinese dialects, language acquisition and pedagogy, technology-assisted language learning

*K. Kanno, PhD—Japanese linguistics, syntax, second language acquisition, parsing

H. U. Kelley, MA—Japanese language teaching

*M. S. Kim, PhD—discourse-functional linguistics, conversation analysis, vocabulary acquisition, Korean language pedagogy

*Y-H. Kim, PhD—modern Korean women writers; modern Korean literature; Korean culture; East Asian women writers and society


D-K. Kong, PhD—Korean language and linguistics, language acquisition, pedagogy, assessment

M. Lachmann, MA—Japanese language teaching

J-Y. Lu-Chen, PhD—Chinese language teaching, translation and interpretation

K. A. Masunaga, MA—Japanese language teaching

*D. R. McCraw, PhD—classical Chinese literature, especially poetry, particularly Tang shi, Song shi and ci, and Qing ci

G. E. Nakahara, PhD—Japanese language teaching

*N. M. Ochner, PhD—modern Japanese literature, comparative literature of Japan and the West, bibliography

M. Ogasawara, MA—Japanese language teaching

D. T. Ogawa, MA—Japanese language teaching

*H. Park, PhD—Chinese historical phonology, early Chinese (pre-imperial) manuscripts, textual criticism, Chinese historical syntax

*M. J. Park, PhD—Korean language and linguistics, pedagogy, pragmatics

*Y. Peng, PhD—20th century Chinese literature and visual culture, Chinese film, critical theory

G. E. Ray, MA—Japanese language teaching

*K. A. Reynolds, PhD—Japanese socio-historical linguistics, and sociolinguistics (gender and class)

*H-M. Sohn, PhD—Korean language and linguistics, Korean-Japanese comparative syntax, general linguistics

M. Stevenson, MA—Japanese language teaching

*Y. Tateyama, PhD—pragmatics, Japanese language pedagogy, discourse analysis, translation and interpretation

*A. H. Thornhill, PhD—medieval Japanese literature and religion

*G. Vitiello, PhD—late imperial Chinese fiction and history of sexuality

*A. V. Vovin, PhD—Japanese, Korean and Tungusic historical and descriptive linguistics; Central Asian linguistics; the Ainu language

Y. Wada, MA—Japanese language teaching

H. Wang, PhD—Chinese syntax, semantics, and phonology; Chinese language pedagogy; teaching Chinese for professionals

P. C-K. Woo, MA—Japanese language teaching

*T-C. Yao, PhD—Chinese language pedagogy, computer-assisted language instruction in Chinese

*D. R. Yoshimi, PhD—Japanese second language acquisition and pedagogy, discourse analysis, pragmatics and sociolinguistics

S. M. Zeng, PhD—Chinese language teaching, translation and interpretation

Cooperating Graduate Faculty

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

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, Japanese, and Korean language, linguistics, and literature.

At the undergraduate level, language skill courses help students develop a high level of proficiency in both the spoken and written aspects of the languages. There are separate BA and Certificate programs to prepare American students to function in Korean in given professional fields. Other courses provide both introductory survey coverage and advanced, theme-specific investigations of the literary cultures of East Asia and the linguistic analysis of Chinese, Japanese, and Korean. Cultural awareness as well as language proficiency are further promoted through extra-curricular activities such as student clubs, video/film showings, lectures, and study abroad programs. Our students have the opportunity to participate in study abroad programs in Hainan, China; and Kobe and Machida, Japan; and Seoul, Korea. The graduate programs are designed to provide students with advanced professional training in two tracks: 1) language/linguistics, and 2) literary studies.

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, 402, and 461
- 6 credit hours from the following, at least one course must be taken from each of the following group:
  (a) CHN 451, 452, 455, 456, 470
  (b) EALL 361, 362, 363B, 363C
- 9 credit hours of approved courses in Chinese language and literature

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

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

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BA in Korean

Requirements

Students must complete a minimum of 36 credit hours, including:
- KOR 301, 302, 401, 402, 451, 452, and 470
- EALL 281 or 282
- 12 credit hours in approved courses

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BA in Korean for Professionals

Requirements

Students must complete a minimum of 36 credit hours, including:
- KOR 401, 402, 403, and 404 [KOR 307, 308 may replace exempted KOR 401, 402]
- KOR 421, 422, 425 (6 credits), 470, 480, 485, 486, and 1-year overseas program year at Korea University

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Minor

Students planning to declare a minor should have completed successfully four semesters of language skill courses or their equivalent and must have a GPA of 2.0 or higher. A minimum of 15-17 credits from five courses in one of the three languages (Chinese, Japanese, Korean) will be required. At least 9 credits will be from non-language skills courses with a focus on linguistics or literature. In the case of native speakers, they will be required to take five non-language skill courses. All courses selected must have the approval of advisors in both the student’s major department and the EALL Department. Only courses with a C (not C-) or above will be counted, and the student must have a cumulative GPA of 3.0 or higher for the five courses. All courses must be taken within the UH system, with minimum of at least three courses taken at UH Mānoa. A detailed description of program requirements is available at the department office in Moore Hall 382.

Certificate

Certificates in Chinese, Japanese, Korean, and Korean for Professionals 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. A detailed description of the program requirements is available from the department office in Moore 382.

Graduate Study

Complete details on the graduate programs are available from the department office in Moore Hall 382 and on the department’s webpage. All of our graduate degree programs are
academic in nature, and focus on the disciplines of linguistic and literary study.

MA graduates of the programs have obtained positions as instructors in private schools, two- and four-year colleges and universities; as translators; and in various capacities in private firms and government service. PhD graduates have obtained teaching positions at universities in the U.S. mainland, Canada, and in several Asian countries.

The MA and PhD are recognized Western Interstate Commission for Higher Education (WICHE) regional graduate programs. Residents of Alaska, Arizona, California, 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, Korean literature, and Korean for Professionals. The PhD degree is offered with concentrations in the same fields, but not in Korean for Professionals. All applicants for the MA 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. All applicants for the PhD program must have a BA, and must have earned with distinction an MA in the language or literature of their concentration, and must submit three letters of recommendation, GRE General Test scores, and a sample of their scholarly writing in English. Normally, each newly-admitted MA student is required to undergo a diagnostic evaluation and each PhD student is required to undergo an assessment, differing according to subfield, as well as fulfill any language requirement, in order to be eligible for advancement to candidacy. Students emphasizing Japanese Language/Linguistics and Korean Language/Linguistics must also fulfill a publishable paper requirement in order to be eligible for advancement to candidacy.

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. The MA in Korean for Professionals is a Plan B program only.

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

In order to be advanced to candidacy, PhD students are expected to master four fields, at least one of which will be outside the students’ areas of specialization and must pass a comprehensive examination covering the four fields. PhD students in Korean Language/Linguistics must master three fields and a comprehensive examination covering these three fields. After being advanced to candidacy, all PhD candidates must complete an original dissertation, and pass a final oral examination in defense of the dissertation. Apart from having a command of English and their language of concentration, 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
Saunders Hall 542
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8496
Fax: (808) 956-4347
Email: econ@hawaii.edu
Web: www.economics.hawaii.edu

Faculty

*B. Bangnes, PhD (Chair)—international macroeconomics, econometric modeling
*C. Bonham, PhD—applied macroeconomics, monetary theory
*P. Fuleky, PhD—time series econometrics, economic forecasting
*T. Greaney, PhD—international economics, industrial organization
*T. Halliday, PhD—health economics, economic development, econometrics
*R. Juarez, PhD—microeconomic theory
B. Karacaovali, PhD—international trade, political economy of trade policy, development economics
*D. E. Konan, PhD—international trade
*S. La Croix, PhD—economic history, development economics, industrial organization
*S. H. Lee, PhD—population economics, macroeconomics
*J. Lynham, PhD—environmental and resource economics, experimental economics, marine ecology, behavioral economics
*I. Noy, PhD—international finance
*J. Roumasset, PhD—development economics, public resource allocation, resource economics
*K. V. Shershyuk, PhD—experimental economics, game theory
*N. Tarui, PhD—environmental and resource economics, applied microeconomics, applied game theory
*J. R. Tracznynski, PhD—economics of education, law and economics
*X. Wang, PhD—macroeconomics, monetary economics, econometrics, applied microeconomics, labor economics
*L. Wang, PhD—monetary economics, macroeconomics, search and matching theory

Cooperating Graduate Faculty

P. Garrod, PhD—marketing and production economics
E. Im, PhD—econometrics, statistical theory
P. S. Leung, PhD—production economics, quantitative methods
S. G. Rhee, PhD—Asia-Pacific financial markets
T. B. Vu, PhD—development economics, international economics

* Graduate Faculty
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
B. Kaiser, PhD—environmental economics, microeconomics
Z. Zhang, PhD—environmental and resource economics, economics of climate change

Degrees Offered: Undergraduate Certificate in Social Sciences and Health; BA (including minor) 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, Hawai‘i’s economic challenges, regulation, 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 public policy, as well as economics.

Economics at UH 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. Geographic and subject matter interests of students and faculty contribute to a regional specialization in accord with UH’s overall mission.

Exchange Programs
The UH Mānoa Department of Economics participates in academic and educational exchanges with Nihon University, Tokyo, Japan; Yonsei University, Seoul, South Korea; 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

Interdisciplinary Certificate in Social Science and Health
The purpose of this certificate is to supplement the disciplinary major of students who wish to pursue careers in the field of health and health care by enhancing the breadth, quality, and coherence of their education through taking health-related courses in a variety of different academic disciplines. A more complete description and the requirements are described under the Department of Sociology.

Bachelor’s Degree
The BA 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 U.S. 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
Majors must complete 24 credit hours of upper division courses including ECON 300, 301, and 321. At least six credit hours must be earned by completing Upper Division II ECON courses, and students must earn a C (not C-) or better in all courses designated as counting toward the major.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

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 PhD program provides state-of-the-art theoretical and empirical 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, economics, and energy. Relationships also exist with various country centers located in the UH Mānoa’s School of Pacific and Asian Studies and with other programs in the College of Social Sciences. In conjunction with the Shidler Business College, 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 macroeconomics theory, elementary statistics, and a mathematics background that includes...
at least two 3-credit semester courses in calculus. For the PhD program, we recommend the completion of two additional courses prior to entry in any of the following subjects: advanced calculus, linear algebra, differential equations, real analysis, or related areas. 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**

An MA student must be in residence for at least two semesters, and all work must be completed within seven years of admission.

**Requirements**

A student must earn 30 credit hours in economics, including at least 21 hours of 600- or 700-level courses. Up to 9 credit hours of 400-level courses may apply to the 30 credit hour requirement. Graduate credit will not be granted for 300-level courses. A student must have a B average (3.0 GPA) for all courses completed at UH Mānoa applied toward the degree, and a B average for all 600-level and 700-level courses.

The MA requires completion of the following:
- A four-course common core comprising ECON 606, 607, 627, and 628, with a B average;
- A two-course area of concentration; and
- An individual research project, constituting the capstone experience for the degree.

A student may also choose to write a master’s thesis in lieu of the individual research project. Students who complete the PhD core may substitute a passing grade on either of the PhD qualifying exams for the individual research project requirement for a master’s degree.

A student who completes the MA degree may apply to the PhD program. By taking appropriate courses, a student may be able to earn both MA and PhD degrees within five years.

**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 graduate program.

**Requirements**

The PhD in economics requires successful completion of
- seven core courses comprising ECON 606, 607, 608, 609, 627, 628, and 629 with a grade of B- or better in each course;
- qualifying examinations in microeconomic theory and macroeconomic theory;
- seven 600-level and 700-level courses in economics (including ECON 730) beyond the core;
- two fields;
- a research paper;
- an oral comprehensive exam, administered jointly with the defense of the dissertation proposal;
- a final oral exam, including defense of the final dissertation; and
- submission of the final dissertation manuscript to the Graduate Division.

Normal progress requires students to take and pass both theory qualifying exams at the end of the first two semesters of study, and to complete all core courses in the first three semesters of enrollment. Students failing a qualifying examination may retake it only once.

Students choose two fields, each consisting of two courses, from among the following five fields offered by the department:
1. Economic development (ECON 610 and 611)
2. International economics (two of ECON 660, 662, and 664)
3. Public economics (ECON 650 and 651)
4. Resource and environmental economics (ECON 637 and 638)
5. Human resources (two of ECON 670, 672, and 674)

Some field courses are offered annually, others less frequently. Students may petition to substitute a field in another discipline or another field in economics for one of the five fields listed above.

Before the end of their fourth semester, students should, in consultation with the graduate chair, reach agreement with a UH Mānoa economics faculty member to serve as their research paper advisor. Any member of the economics graduate faculty may serve as your paper advisory, and the arrangement is by mutual agreement. You then invite two other faculty members to serve as readers of your paper. Have your paper advisor and readers indicate their willingness to serve by having them sign the research paper form, which can be obtained from the staff in the economics department office. Submit the form to the graduate chair for approval before or during the fall semester of your third year of graduate study. During that semester, you are required to register for ECON 730, Research Seminar, and make substantial progress on your research paper. You are encouraged to consult with your paper advisor periodically as you work on your research paper. You may also consult with your second and third readers. Upon completion of the paper, submit it to your advisor and readers, who will evaluate the paper and sign a grade of “pass,” “high pass,” or “fail.” Students who receive a grade of “fail” will have one opportunity to revise the paper provided they meet the appropriate deadlines. The deadline for submitting your paper is May 1 of your third year of graduate studies and the deadline for resubmissions is August 1.

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 UH Mānoa. A student who fails the comprehensive examination may repeat it once. A student who fails a second time is dropped from the program. Students who pass the oral exam are advanced to candidacy for the PhD.

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 dismissed from the program.
Finally, a dissertation accepted by the dissertation committee is submitted to the Graduate Division. The final dissertation must also conform to UH Mānoa standards in content and format.

### English

College of Languages, Linguistics and Literature  
Kuykendall 402  
1733 Donaghho Road  
Honolulu, HI 96822  
Tel: (808) 956-7619  
Fax: (808) 956-3083  
Email: See list of contacts on webpage  
Web: www.english.hawaii.edu

**Faculty**

*F. R. Ardolino, PhD—Renaissance literature, drama*
*C. Baccilega, PhD—folklore and literature, gender and fairy tales, narrative, folkloristics and colonialism, feminist criticism, translation studies*
*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*
*C. Clayton, PhD—composition and rhetoric*
*S. Curry, PhD—American literature, children’s literature, comparative literature, critical theory, creative non-fiction and autobiographical writing*
*R. W. Dasenbrock, PhD—modernist literature, literary theory*
*D. Desser, PhD—20th-century rhetorics, writing and difference, composition studies*
*C. Franklin, PhD—contemporary ethnic U.S. literatures, cultural theory, life writing, disability studies, feminist studies*
*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. Heberle, PhD—Renaissance literature, American Vietnam literature*
*J. Henry, PhD—composition studies, technical writing, professional writing, auto-ethnography*
*K. Ho’omanawanui, PhD—Hawaiian literature*
*C. Howes, PhD—life writing, literary theory, research methods, 19th-century literature*
*R. Hsu, PhD—Asian American and Asian diaspora literature, U.S. ethnic literatures, cultural studies*
*F. Jussawalla, PhD—postcolonial literature, Indian literature in English*
*J. Kellogg, PhD—medieval English and French literature, comparative literature, medieval women writers*
*A. Kennedy, MA—creative writing*
*S. Kosanke, MA—composition and literature instruction*
*J. Lew, PhD—late 18th-century literature, English and European romanticism, Gothic*

* Graduate Faculty

*L. Lyons, PhD—post-colonial literatures and theory, Irish literature, cultural studies*
*P. Lyons, PhD—19th and 20th Century U.S. literatures, settler and Pacific region literatures, literary and cultural theory*
*G. Man, PhD—film, narrative, 19th-century British literature*
*K. McAndrews, PhD—American literatures, folklore and oral narrative, cultural studies*
*R. W. McHenry Jr., PhD—Restoration and 18th-century literature, Shakespeare, literature and art*
*L. Middleton, PhD—19th-century literature by women, feminist theory, psychology and literature*
*R. Morales, MA—creative writing, literature of Hawai‘i and the Pacific, American ethnic literature, film noir/roman noir*
*J. Morse, PhD—American literature, literary history*
*R. Westbury Nettell, PhD—composition and literature instruction*
*P. Nicholson, PhD—Old English, Chaucer, medieval literature, English language*
*J. H. O’Mealy, PhD—modern drama, Victorian literature*
*G. Pak, PhD—creative writing, literature of Hawai‘i and the Pacific, Asian American literature, American ethnic literature*
*D. Payne, PhD—composition and rhetoric, computer-mediated writing, new media, globalization*
*J. Peters, PhD—modern British and American literature, narratology, the British novel (1700-1945)*
*K. Phillips, PhD—gender studies, literature of war, postcolonial literature, creative writing*
*P. Quigley, PhD—American literature, eco-criticism*
*J. Rieder, PhD—literary and cultural theory, science fiction, British Romanticism*
*T. Sammons, PhD—Renaissance and 17th-century literature, Milton, science fiction, rhetoric*
*S. Schultz, PhD—20th-century poetry in English, American literature, creative writing*
*S. Shankar, PhD—postcolonial literature and theory, South Asian literatures, translation and translation studies*
*G. Sibley, PhD—British and American novel, Victorian literature, satire*
*C. Sinavaiana, PhD—oceanic literatures, folklore, and film, comparative ethnic and post colonial literatures, creative writing (poetry and creative nonfiction)*
*F. Stewart, MA—creative writing, poetry and poetics, American nature writing, biocultural essays and criticism, internationalism, Asian and Pacific literature, translation*
*R. Sullivan, MA, Dip.Libr.—creative writing, folklore, Pacific literature, modern and contemporary poetry and poetics*
*C. Ward, PhD—critical theory, post-colonial literature, popular culture, oral and performance theory, the novel*
*J. Zuern, PhD—fiction, comparative literature, literature and philosophy*

**Degrees Offered:** BA (including minor) in English, MA in English, PhD in English

### The Academic Program

The Department of English encourages students to develop their critical reading, writing, and creative skills through study of a variety of literatures in English, composition and rhetoric, and creative writing. The department recognizes the unique diversity of cultures in Hawai‘i and employs a variety of ap-
proaches, including multicultural and Asia Pacific perspectives, to address this uniqueness. Students work directly with faculty in relatively small classes. The department participates actively in UH Mānoa’s Honors Program and its Study Abroad Semester and offers professional internships for interested students in the senior year.

The goals of the undergraduate English program are (a) to offer a comprehensive range of courses in literary and cultural studies, composition, rhetoric, and creative writing; (b) to develop students’ critical thinking and reading skills; (c) to develop students’ interests and abilities in rhetoric and writing across a variety of genres. Many of our courses recognize Hawai’i’s geographical and cultural location in the Pacific.

The department prepares students’ knowledge of literature, composition and rhetoric, creative writing, 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**

For Arts and Sciences students, one FW and one ENG DL course are prerequisites for the English major and minor. Students enrolled in colleges other than Arts and Sciences may elect ENG DL courses (as per current policy). All UH 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; 3 credits
2. Single author course (440 Alpha Single Author; 442 Chaucer; 445 Shakespeare; or 447 Milton); 3 credits
3. 300-level ENG elective; 3 credits
4. 400-level ENG elective; 3 credits
5. 500- or 400-level ENG elective; 3 credits

Only courses in which a student receives a C or better may be counted toward the major.

**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 (300-308, 311)
- Creative Writing (313)
- Literary History (321-56)
- Genre (360-65)
- Literature and Culture (370-85)

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

Only courses in which a student receives a C or better may be counted toward the major.

For information on a Bachelor Degree Program Sheet, go to [www.manoa.hawaii.edu/ovcaa/programsheets/](http://www.manoa.hawaii.edu/ovcaa/programsheets/).

**Non-English Department Course**

With the consent of the student’s advisor or the director of the undergraduate program, 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, cultural studies, or rhetoric and composition. The student may also take electives from any of these areas.

For Arts and Sciences students, one FW and one ENG DL course are prerequisites for the English major and minor. Students enrolled in colleges other than Arts and Sciences may elect ENG DL courses (as per current policy). All UH 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; 3 credits
2. Single author course (440 Alpha Single Author; 442 Chaucer; 445 Shakespeare; or 447 Milton); 3 credits
3. 300-level ENG elective; 3 credits
4. 400-level ENG elective; 3 credits
5. 500- or 400-level ENG elective; 3 credits

Only courses in which a student receives a C or better may be counted toward the minor.

Advising is mandatory for majors; new majors will be assigned an advisor when they meet with the director of the undergraduate programs for their required orientation session. Call (808) 956-7619 for an appointment.
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. Applicants must also submit a comprehensive statement of professional goals and objectives; PhD students must submit 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 January 1 for the PhD program and February 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 UH Mānoa graduate programs at the PhD level. Complete information on the graduate program is provided in a graduate student manual, available from the department on request.

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 director. The consent of the instructor is required for ENG 691, 699, 700, and 800; the consent of the graduate director is required for all graduate courses. The following courses may be repeated for credit, since content differs from semester to semester: ENG 613, 625, 691, 699, 705, 709, 727, 730, 735, 740, 760, 780, and 790.

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

- 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 625D—plus an additional 625, both taken during the first semester
- 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 director may approve the use of a 400-level course to meet this requirement.
- One course with substantial content in Asia/Pacific at the 400-, 600- or 700-level, in or out of the English department while in residence at UH Mānoa
- 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
- Two courses taken from the 625 sequence, to be taken in the first semester, 6 credits
- 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 402, 403, 404, 601 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 601, which will count towards the MA degree but may not also be used to fulfill the pre-1700 or pre-1900 course requirement.
- One course with substantial content in Asia/Pacific, at the 400-, 600-, or 700-level, in or out of the English department, while in residence at UH Mānoa.
- 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 625B; one graduate course in a subject area before 1700.
- Requirements for those in composition and rhetoric: ENG 605, 625C, 705 and 709; 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 625E 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 advisor.

**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 seven 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; one course with substantial content in Asia/Pacific at the 400-, 600-, or 700-level, in or out of the English department, while in residence at UH Mānoa. 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) or in one language at an advanced level of proficiency. 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**

Colleges of Arts and Sciences

Environmental Center

Krauss Annex 19, 2500 Dole Street

Honolulu, HI 96822

Tel: (808) 956-7362 or (808) 956-7164

Fax: (808) 956-3980

Email: jcusick@hawaii.edu

Web: www.hawaii.edu/envctr/

**Faculty**

J. Cusick, PhD (Advisor)—environmental studies, education for sustainability, ecotourism, political ecology, protected areas, Pacific Basin

**Affiliate Faculty**

C. L. Andrade, PhD—traditional navigation, Malama‘aina: traditional resource management, indigenous geography, Hawaiian music

J. L. Cox, PhD—community economic development

E. P. Dashil, MA—environmental and facilities planner, environmental impact statements, environmental investigations

E. H. DeCarlo, PhD—aquatic and environmental geochemistry, oceanography, freshwater

D. Duffy, PhD—conservation, restoration ecology

D. R. Drake, PhD—botany, ecology, Polynesian plants

S. Meder, ArchD—architecture, design, environmental systems

M. D. Merlin, PhD—biogeography, natural history of Hawai‘i

J. K. Odin, PhD—Interdisciplinary Studies advisor, cultural studies of science and technology, literary and political ecology, new technologies and their impact on higher education

T. Radovich, PhD—vegetables, sustainable farming

J. E. Schoonmaker, PhD—Global Environmental Sciences advisor, oceanography

B. Szuster, PhD—geography, coastal resource management, environmental impacts assessment

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

**The Academic Program**

Environmental studies (EVS) is an individually designed, interdisciplinary program established in 1965 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 Interdisciplinary 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. 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 interdisciplinary studies program. For information, contact the Environmental Center or Interdisciplinary Studies Program. Interested students should refer to the “Interdisciplinary Studies” section within the Colleges of Arts and Sciences.

**Requirements**

- Introductory courses:
  - BIOI 101/101L or BIOI 171/171L or BIOI 125/125L
  - 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:
  - BIOI 310 or OCN/OEST/MET 310
  - BOT 454 or ZOOL 200/200L
  - GEOG 404
  - OCN 320
  - IS 489
- 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. For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

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 or OCN/OEST/MET 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 360, 410, 425
- BOT 450, 453, 454, 455
- GEOG 300, 305, 309, 401, 404, 405, 410
- GG 455
- OCN 320, 330, 331
- ZOOL 439/439L, 450, 485

Electives for the social science courses include the following:
- AMST 320, 420
- ANTH 415, 435
- ARCH 341
- ECON 358
- GEOG 330, 335, 380
- IS 361
- NREM 302
- PLAN 310, 399
- SOC 412

For more information, contact the Environmental Center.

Ethnic Studies
College of Social Sciences
2560 Campus Road, George Hall 301
Honolulu, HI 96822
Tel: (808) 956-8086
Fax: (808) 956-9494
Email: esdept@hawaii.edu
Web: www.ethnicstudies.hawaii.edu

Faculty
I. G. Aoudé, PhD (Chair)—Hawai’i political economy, Middle East politics, social movements in Hawai’i and the South Pacific
B. Chung, PhD—Chinese diaspora, transnationalism, Chinese Americans, popular culture and music
M. Das Gupta, PhD—South Asians in America, race and gender politics, U.S. immigration policies
U. Hasager, PhD—assistant specialist in civic engagement
N. Kent, PhD—political economy in Hawai’i and the Pacific, American ethnic relations
R. Labrador, PhD—Filipino culture, history and politics in Hawai’i and the U.S., culture, race, ethnicity, class, diaspora
D. McGregor, PhD—Hawaiian history, social movements in Hawai’i and the Pacific
J. Y. Okamura, PhD—race and ethnicity, minority access to higher education, ethnic relations in Hawai’i, Japanese in Hawai’i, Filipinos in Hawai’i, Asian Americans
T. Tengan, PhD—identity, gender, indigenous theory and methodology, Hawai’i and the Pacific
F. L. Uperesa, PhD—American ethnic and race relations, racism and ethnicity in Hawai’i
E. J. White, PhD—African American experience

Affiliate Faculty
A. Castanha, PhD—political science (indigenous cultures)
L. Petranek, PhD—political science (political economy)

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

The Academic Program
The Department of Ethnic Studies (ES) is an interdisciplinary program with emphasis on undergraduate education. Initiated in 1960, 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 U.S. 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 30 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, 338, and 339
- 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, 350, 360, 365, 370, 372, 373, 381, 390, 392, 399, 410, 418, 420, 443, 455, 456, 480, 486, 492, 493, and 495
- A 2.0 GPA in ethnic studies and the 6 credit hours of related courses must be approved by a departmental advisor

* Graduate Faculty
Faculty

*E. A. Wingert, PhD (Chair)—cartography, remote sensing
W. Ahmed, PhD—political economy, development, state-society relations
*D. Beilman, PhD—biogeography, long-term ecology, terrestrial carbon accumulation, paleoenvironmental change
*Q. Chen, PhD—remote sensing, geographic information systems, geostatistics, spatially-explicit modeling
*T. W. Giambelluca, PhD—climatology, hydrology
*H. Jiang, PhD—cultural geography, environment, perception of nature, China
*R. Jones, PhD—political geography, globalization, borders, sovereign state system, nationalism, South Asia
*S. M. Jorgensen, PhD—evolutionary biogeography, landscape and ecological genetics, conservation
*M. G. McDonald, PhD—agricultural change, social theory, political geography, Japan
*M. McGranaghan, PhD—computer cartography, geographic information systems
C. Mora, PhD—interlinks between biodiversity patterns, processes, threats and human welfare
*M. A. Ridgley, PhD—resource systems analysis, decision science and support, risk assessment
*A. Rieser, LL.M. —fisheries management law and policy, marine conservation, law of the sea
*K. Suryanata, PhD—political ecology, agricultural geography, natural resource management, Third World
*R. A. Sutherland, PhD (Associate Dean)—geomorphology, soil erosion, water quality
*B. Szuster, PhD—coastal resource management, environmental impacts assessment, marine recreation, Thailand

Certificate

Requirements
- Complete 18 credit hours in ethnic studies with a 2.0 GPA
- ES 101 (301 may be substituted)
- 6 credit–hours on the history and dynamics of ethnic groups from ES 221, 305, 306, 330, 331, 332, 333, 335, 338, and 339
- 9 credit–hours on the history, theory, and problems of ethnic groups and ethnicity in the framework of social, economic, and political change from ES 301, 310, 318, 320, 340, 350, 360, 365, 370, 372, 373, 380, 381, 390, 392, 399, 410, 418, 420, 440, 443, 455, 456, 480, 486, 492, 493, 495

Requirements
- GEOG 101/101L, 104, 151, 380, and 493

Degree Offered: BA (including minor) in geography, MA in geography, PhD in geography, Graduate Certificate in Ocean Policy

The Academic Program

Geography (GEOG) provides a broad perspective on human and physical phenomena that define and transform the surface of the Earth. It explores the complexity of and interrelationships among the cultures, economies, histories, ecologies, and physical state that characterize particular places and how such relationships vary across space. Three themes (the operation on interlocking systems of the natural environment; the relationship between environment and society; the nature of place and space and the relationships and processes defining and changing them) focus upon the myriad challenges in the contemporary world, such as global environmental change, its causes, and its implications for the human experience; resource management and regional development in the Third World; regional conflict fed by ethnic, religious, economic, and territorial differences; the making of resource and locational decisions; and the collection, processing, display and communication, and management of spatial information. The department is uniquely placed to examine these issues in the Asia-Pacific region. Hawai‘i’s historical, sociocultural, economic, 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
- GEOG 101/101L, 104, 151, 380, and 493

In addition to the core requirements, each student must elect one of three of the following streams and complete at least 21 credit hours in the upper division courses specific to each stream.
Graduate Study

The department offers programs of graduate study and research leading to the MA and PhD degrees. Faculty interests and supporting strengths of UH Mānoa provide advantages for study of the following general topics: (a) environmental studies and policies; (b) resource management and systems; (c) conservation, 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 environmental 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 UH Mānoa 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

Ocean Policy Certificate Program

The wise use and careful stewardship of the ocean require people with multidisciplinary and interdisciplinary advanced education in the natural and social sciences. This program is designed for classified graduate students and law students in good standing, and community professional practitioners who hold a bachelor’s degree who meet minimum admissions requirements are eligible to complement their existing degree or curriculum. An advisory committee assists each student in custom-designing a 21-credit (minimum) program that draws on marine-related courses in law, geography, agricultural and resource economics, oceanography, coastal management, civil and ocean and resources engineering, geology and geophysics, meteorology, botany and zoology, and includes an interdisciplinary seminar and two practica (one each in natural science and social science). For further information and applications, contact the department.

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. Minimum of 15 credit hours in graduate courses in a departmental field of specialization (course work taken at the MA/MS level may be used in partial fulfillment of this requirement);
4. Minimum of 6 credit hours in research methods or techniques (statistics, cartography, remote sensing, GIS, quantitative or qualitative methods, computer applications, field methods, experimental methods, laboratory techniques or bibliographic techniques);
5. Passing of written and oral comprehensive examinations; and

History
College of Arts and Humanities
Sakamaki A-203
2530 Dole Street
Honolulu, HI 96822
Tel: (808) 956-8486
Fax: (808) 956-9600
Web: manoa.hawaii.edu/history

Faculty
*M. T. McNally, PhD (Chair)—Tokugawa Japan, social and intellectual
*L. Y. Andaya, PhD—traditional Southeast Asia, Indonesia
*N. M. Arista, PhD—Hawaiian Islands, 19th century U.S., Pacific world
*J. H. Bentley, PhD—world history, early modern Europe
*N. O. Bertz, PhD—South Asia, Indian ocean, Africa
*S. J. Brown, PhD—modern China, intellectual and cultural
*D. A. Chappell, PhD—Pacific Islands, world history, Africa
*E. L. Daniel, PhD—Middle East, Islam
*M. L. Daniel, PhD—U.S. early American Republic, politics and race
*E. L. Davis, PhD—middle China, religion
*W. W. Farris, PhD—pre-modern Japan, social and economic
*D. L. Hanlon, PhD—Pacific Islands, Micronesia, ethnography
*M. A. Henriksen, PhD—U.S., recent America, popular culture
*P. H. Hoffenberg, PhD—modern Europe, England, British Empire
*K. L. Jolly, PhD—medieval Europe, Anglo-Saxon England, medieval Christianity
*L. C. Kelley, PhD—modern Southeast Asia, Vietnam
*J. P. Kraft, PhD (Associate Chair)—U.S., business and labor
*M. V. Lanzona, PhD—modern Southeast Asia, Philippines, women
*M. J. Lauzon, PhD—early modern Europe, European intellectual
*C. K. Matteson, PhD—modern Europe, France, environmental history
*R. E. McGlone, PhD—U.S., 19th-century, social history, biography
*N. Njoroge, PhD—U.S., Caribbean and Latin America, race and critical theory
*R. L. Rapson, PhD—U.S., cultural and intellectual
*R. C. Rath, PhD—U.S., early America, Atlantic world, Native American, sensory
*S. J. Reiss, PhD—U.S. foreign relations, Latin America and Caribbean, African
*M. P. Romaniello, PhD—early modern Europe, Russia, Soviet Union, gender
*J. P. Rosa, PhD—Hawaiian Islands, 20th century Hawaii, U.S. social and cultural
*S. Schwartz, PhD—ancient Europe, classical history, gender, law
*M. P. Speidel, PhD—ancient Europe, Greece and Rome, Roman military, epigraphy
*Y. Totani, PhD—modern Japan, Pacific
*T. J. Yoo, PhD—modern Korea, colonialism, gender and cultural studies
W. Wang, PhD—classical China, Ming/Qing China, politics and culture
*H. F. Ziegler, PhD—modern Europe, Germany, Holocaust, world history

Cooperating Graduate Faculty
B. Andaya, PhD—Southeast Asia

Degrees Offered: Undergraduate Certificate in Islamic Studies, BA (including minor) 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 enriches an understanding of 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 UH Mānoa offers a full range of courses in American, Asian, European, Pacific, and world history.

Undergraduate Study
Bachelor’s Degree

Requirements
Students must complete eleven courses (33 credit hours) in history with a grade of C (not C-) or better distributed as follows:
- Minimum of five courses (15 credit hours) in one of the following four fields (U.S., Europe, Asia/Pacific, Europe, or Comparative/World)
- One upper-division course (3 credit hours) in each of the other three fields
For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

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 advisor of the department and complete the appropriate forms. The minor requires the successful completion with a grade of C (not 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.

Undergraduate Certificate in Islamic Studies

The purpose of this certificate is to increase understanding of Islam as a world religion through critical analysis of primary and secondary materials, to foster knowledge about the complexity among Islamic societies and their diverse cultural expressions, and to explore the role of Islam and Muslims in present and past world affairs.

This certificate is housed within the College of Arts and Humanities. The participating departments are Art and Art History, History, Philosophy, and Religion. Minimum prerequisites for acceptance into the program for undergraduates are sophomore or higher standing with a minimum GPA of 2.5 and the completion of at least one introductory course within one of the four participating departments with a grade of B or better.

A more complete description and the requirements are described under the Department of Philosophy.

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, or by email at gradhist@hawaii.edu.

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 and 790, 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 or American studies. 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 U.S. 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 major and a minor), a final oral examination covering those two fields of history, and submission of two major research papers from graduate seminars, one in the major field and the other in the minor field.

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.

**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) 956-5968
Email: hip@hawaii.edu
Web: www.manoa.hawaii.edu/ipll/

**Faculty**

J. F. Mayer, PhD (Chair)—language learning and teaching, language in society, Samoan
A. S. Agcaoili, PhD—Philippine literature and culture, creative writing; poetry, fiction, drama, Ilokano language and literature, philosophy of language, literary relations, literatures of exile and diaspora
P. C. Arboleda, PhD—Philippine literature, creative writing, Ifalik language, gender studies, literary theory, and Southeast Asian traditional culture
S. Bhatawadekar, PhD—Hindi, Urdu language, foreign and heritage language teaching, pedagogy, curriculum and material development and program building; South Asian cinema and culture; film adaptation of literature, Hindi and Buddhist religious philosophies and their reception in the West; German-Indian comparative philosophy
M. T. Boyce, PhD—applied linguistics, Corpus linguistics, lexicography; Maori language learning and teaching; immersion education; children’s productive reo Maori, resources for literacy; literature in Maori for adults and children, traditional song poetry; language maintenance and shift, language and power
I. Gasmen, MA—Filipino (Tagalog) language learning and teaching; language and multimedia; educational communication, distance education
Y. Hoonchamlong, PhD—Thai linguistics, language learning and teaching, information technology in language research and language learning
L. Q. Santiago, PhD—Philippine studies, Philippine literatures, women and feminist literatures, and translation studies
C. Sak-Humphry, PhD—Khmer language, linguistics and literature; development of Khmer language teaching materials, linguistics research on Old Khmer inscriptions (Pre-Angkor to Angkor period)
L. Q. Santiago, PhD—Philippine studies, Philippine literatures, Ilokano and Filipino (Tagalog) languages and literatures, poetry, fiction, creative writing and critical writing, comparative literature, women and feminist literatures, and translation studies
R. N. Sharma, PhD—Indian linguistics, Hindi, Sanskrit, and Panini
J. Soria, MA—Ilokano language, second/foreign, and heritage language teaching and learning, curriculum development and evaluation, media literacy and electronic portfolio

**Degrees and Certificates Offered:** Undergraduate Certificate in Indo-Pacific languages (Filipino, Hindi, Ilokano, Indonesian, Khmer, Samoan, Sanskrit, Tahitian, Thai, or Vietnamese); BA in Philippine Language and Literature; BA in interdisciplinary studies (concentration in Hindi, Indonesian, Samoan, Sanskrit, Thai, or Vietnamese); minor in Filipino and Ilokano Language and Culture

**The Academic Program**

Indo-Pacific Languages and Literatures (IPLL) provides instruction in the languages of the Indo-Pacific area to a broad spectrum of students at UH Mānoa. The department's coverage of these languages is unique in the U.S.: This department is the only one to offer programs of study in four Polynesian languages, most of the national languages of Southeast Asia, as well as classical and modern Indian languages as well as Arabic and Urdu. Beyond language, the department offers courses in the literatures and cultures of the area, including literature in translation of South and Southeast Asia, and the Philippines. Opportunities are available for study abroad in certain areas. The department at UH Mānoa 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 second language requirement for all bachelor’s degrees at UH Mānoa. 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 Arabic, Cambodian (Khmer), Chamorro, Filipino, Hindi, Ilokano, Indonesian, Khmer, Marshallese, Samoan, Sanskrit, Tahitian, Thai, Tongan, Urdu, and Vietnamese. For additional languages and topics, see Indo-Pacific languages (IP) courses listed at the back of the *Catalog.*

**Undergraduate Study**

**Certificates**

On recommendation of the Department of Indo-Pacific Languages and Literatures, UH Mānoa confers certification of achievement in Filipino, Hindi, Ilokano, Indonesian, Khmer, 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.

BA Degree in Philippine Language and Literature (with concentration in Filipino or Ilokano)

The program has the following objectives: prepare students for future careers in community service and education; prepare students for advanced research and/or graduate studies in various fields in the Humanities and Social Sciences; and ultimately, serve students of Filipino ancestry by providing them with a better understanding of Philippine culture and proficiency in a Philippine language.

To view the Bachelor Degree Program Sheets with Filipino and Ilokano concentrations, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Requirements

A minimum of 36 credit hours, made up of 24 credits in required language and literature courses in Filipino or Ilokano
- 12 credits language skill courses: 301-402
- 12 credits literature and culture courses
- and 12 credits upper-division and outside electives

Minor in Filipino

Students completing the program would have both oral and written competence in Filipino as well as cultural content sufficient for use in professional careers, graduate work or research, and field work.

Requirements

A minimum of 15 credit hours from five non-introductory courses in Filipino and Philippine culture is required.
- at least 9 credits culture and literature courses
- 6 credits language skill courses

Minor in Ilokano

Students completing the program would have both oral and written competence in Ilokano as well as cultural content sufficient for use in professional careers, graduate work or research, and field work.

Requirements

A minimum of 15 credit hours from five non-introductory courses in Ilokano language and culture is required.
- at least 9 credits culture and literature courses
- 6 credits language skill courses

Honors and Awards

Samuel H. Elbert Graduate Scholarship

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

Amos P. and Edna Lee Leib Scholarship for Graduate Study of Literature of the Pacific

Offered to support graduate students pursuing the study of literature of the Pacific.

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

* M. E. Crosby, PhD (Chair)—human-computer interaction, cognitive science
* K. Back, PhD—computer vision, neural computation, machine learning
* E. Biagioni, PhD—networks, systems, languages
* K. Binsted, PhD—artificial intelligence, human-computer interaction, cognitive science, natural language processing
* H. Casanova, PhD—high performance computing, distributed systems
* D. Chin, PhD—artificial intelligence, natural language processing, cognitive science
* R. Gazan, PhD—social aspects of information technology
* C. S. Ikehara, PhD—biometrics and physiological sensors, adaptive human-computer interfaces
* P. Johnson, PhD—software engineering, artificial intelligence
G. Lau, MS—educational specialist
* L. Lim, PhD—database systems
M. B. Ogawa, PhD—educational specialist
* J. Patriarche, PhD—applications of computers to medicine
* G. Poisson, PhD—cognitive informatics, bioinformatics, machine learning
* L. Quiroga, PhD—information retrieval, databases, library systems, website design
* N. Reed, PhD—artificial intelligence, autonomous agents
* S. P. Robertson, PhD—human-computer interaction, digital government and digital democracy
* J. Stelovsky, DrTechSc—computer-hypermedia, human-computer interaction
* S. Still, PhD—bioinformatics/theoretical biology, information theory, machine learning
* K. Sugiura, DrEng—algorithms, distributed computing, visual languages
* D. Suthers, PhD—human-computer interaction, computer-supported collaborative learning, technology for education, socio-technical networks and online communities

Affiliate Graduate Faculty

D. R. Stoutemyer, PhD—computer algebra, mathematical software
* D. Streveler, PhD—medical informatics

* Graduate Faculty
**Degrees Offered:** BA in information and computer sciences, BS (including minor) in computer science, MS in computer science, 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, computer networks, artificial intelligence, human-computer interaction and bioinformatics, and areas uniquely suited to Hawai‘i’s role as a multicultural and geographical center of the Pacific.

**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 advisor must approve this proposal in writing. Samples of course proposals are available at the ICS department office. Students must complete the following courses (49 credits):

- ICS 111, 141, 211, 212, 241, 311, 312 or 331, 313 or 361, 321, and 332
- At least three ICS courses at the 400-level or above,
- 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.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_ics.asp#ICS_SCHED.

**BS in Computer Science**

**Requirements**

Students must complete the following courses (47 credits):

- ICS 111, 141, 211, 212, 241, 311, 312 or 331, 313 or 361, 314, 321, and 332
- At least five ICS or other approved courses at the 400 level or above

Substitutions are permitted with the written approval of an ICS faculty advisor.

Waiver of certain requirements, such as by Advanced Placement CS Exam, must be approved by the ICS faculty advisor.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_ics.asp#ICS_SCHED.

**Minor**

A cumulative GPA of at least 2.0 and a grade of B (not B-) or higher in ICS 111 in computer science are required for admission.

**Requirements**

Students must complete ICS 211 with a grade of B (not B-) or higher, 212, and 241 and their prerequisites, 111 and 141, and three ICS courses at the 300 level and above with a grade of C (not C-) or better.

**Graduate Study**

The department offers the MS degree in computer science, 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 and the PhD in computer science are required to take the GRE General Test. The subject area examination in computer science is highly recommended. 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, students 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.

Master’s Degree
The master’s program is intended for students planning to specialize in computer science or to apply computer science to another field. Applicants who do not possess an undergraduate degree in computer science from an accredited institution will need to complete equivalent coursework.

Requirements
Plan A (thesis) and Plan B (non-thesis) are available. A minimum of 31 credit hours is required under both plans. A minimum B average must be maintained in all courses.

Plan A (Thesis) Requirements
1. At least six ICS graduate courses, i.e. courses with numbers between ICS 600 and ICS 692, with the exception of ICS 690. At least one course must be taken from each of four areas of concentration in the program to ensure breadth of knowledge;
2. Two additional elective 600-level courses must be taken from either the ICS department or some related discipline (such as LIS, EE, MIS, etc.) on a topic related to computer science. Elective courses must have prior approval from the ICS graduate chair as to the suitability prior to enrollment in the courses;
3. Thesis research taken as 6 credits of ICS 700 is required for the degree. These credits are typically taken close to or during the final semester in the program consist of six credits of ICS 700; and
4. ICS 690 (taken for CR/NC) for one semester.

Plan B (Non-thesis) Requirements
1. At least six ICS graduate courses, i.e. courses with numbers between ICS 600 and ICS 692, with the exception of ICS 690. At least one course must be taken from each of four areas of concentration in the program to ensure breadth of knowledge;
2. Two additional elective 600-level courses must be taken from either the ICS department or some related discipline (such as LIS, EE, MIS, etc.) on a topic related to computer science. Elective courses must have prior approval from the ICS graduate chair as to the suitability prior to enrollment in the courses;
3. A final project taken as ICS 699 (a maximum of six credits required at the of the student’s program of study; and
4. ICS 690 (taken for CR/NC) for one semester.

The administrative procedures for the program include the following rules:
1. The student must meet with the graduate program chair during the first semester;
2. Upon completion of a least 12 credit hours of courses applicable to the degree, students must file a degree plan by selecting Plan A (Thesis) or Plan B (Non-Thesis) options;
3. Plan A students must choose a thesis topic and committee upon completion of 18 credit hours of applicable courses; and
4. All requests for changes in degree plan must be submitted in writing by the student and approved by the graduate program chair before the diploma application is filed.

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

Applicants with bachelor’s degrees must first satisfy the admission and degree requirements of the master’s degree in computer science. Advantages to this route are (1) students are admitted at an early stage to the PhD program; (2) they will, in practice, usually take a year LESS to obtain their PhD since the MS portion of the program will prepare them for their qualifying examination; and (3) students who have completed the MS requirements will have the option of obtaining a master’s degree even if they do not continue with the PhD 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 for students to complete the PhD program are:
1. Passing a qualifying examination demonstrating core competency in computer science no later than the end of the first year of their PhD studies;
2. Preparing a portfolio showing research readiness by the end of the first year PhD program;
3. Defend their PhD proposal;

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

Interdisciplinary Doctoral Degree Program
The ICS department participates in an interdisciplinary program in Communications and Information Sciences (CIS) that integrates computer science, library science, communication and management information systems. Due to the broad knowledge base required to support the program draws on a variety of majors such as behavioral science, economics, engineering, and political science. The computer science program is one of four academic programs (COM, ICS, ITM, and LIS) that support this degree. See the “Interdisciplinary Program” section for more information on this program.


**Interdisciplinary Studies**

Colleges of Arts and Sciences  
Krauss 116  
2500 Dole Street  
Honolulu, HI 96822  
Tel: (808) 956-7296  
Web: www.hawaii.edu/is

**Faculty**  
J. Odin, PhD (Director)  
E. Drechsel, PhD

**Degree Offered:** BA in interdisciplinary studies

**The Academic Program**

The objective of the Interdisciplinary Studies (IS) Program is to provide students with an opportunity to pursue a course of study that is not restricted to conventional departmental or unit boundaries. A crucial feature is the advising process, which aims to develop the student’s ability to formulate a major equivalent comprised of upper division courses with thematic integrity and continuity. This ensures flexibility in the curriculum while precluding loss of academic substance and rigor. Thus students create their own degree proposals that must draw upon no less than three disciplines in the UH Mānoa Catalog in the study of a particular problem or theme, along with specifically designed IS courses.

Mānoa undergraduate students interested in any interdisciplinary course of study should make an appointment for an orientation at Interdisciplinary Studies, 116 Krauss Hall.

While the IS program encourages creation of individually-conceived curricula, it also serves to accommodate students in a variety of fields that lack an undergraduate major and are interdisciplinary in nature. These include:

1. Pre-professional majors (e.g., pre-law, pre-med, pre-optometry, pre-physical therapy);
2. Undergraduate majors that are established at UH Mānoa only as graduate programs (e.g., astronomy, educational psychology, linguistics);
3. Interdisciplinary majors for which there is no currently existing department or program (e.g., criminology, gerontology, disability studies, health studies, globalization studies, international studies); and
4. Majors in existing interdisciplinary programs that do not at this time grant BA degrees: Environmental Studies, Environmental Center Krauss Annex 19; Peace Studies [PACE], 717 Saunders Hall

Students interested in these programs should see both the program in Interdisciplinary Studies for an orientation and an advisor from the relevant program.

Degree proposals must focus upon the identified academic theme, be made in writing, and be accepted by the interdisciplinary studies faculty before the student enrolls for 21 of the 36 credits required in the major equivalent.

In all cases, IS students must satisfy the UH Mānoa degree graduation requirements and General Education Core in order to be eligible for a bachelor’s degree. Students must also maintain a minimum 2.5 GPA for the major equivalent courses. These courses may not be taken CR/NC, unless mandatory. Successful candidates earn a bachelor of arts in Interdisciplinary Studies from the Colleges of Arts and Sciences in the appropriate interdisciplinary program.

There are interdisciplinary programs within UH Mānoa that offer certificates but do not provide a baccalaureate degree. The College of Health Sciences and Social Welfare also offers a number of interdisciplinary programs of study. These programs have different requirements. (See this Catalog)

Details about admission to the IS program offered in the Colleges of Arts and Sciences, and assistance in preparing an individually designed major are available at the program office.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

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**Interpretation and Translation Studies**

College of Languages, Linguistics and Literature  
Center for Interpretation and Translation Studies  
TP 104 (Temporary Portable)  
1859 East-West Road  
Honolulu, HI 96822  
Tel: (808) 956-6233  
Fax: (808) 956-2078  
Email: cits@hawaii.edu  
Web: cits.hawaii.edu

**Faculty**  
D. Ashworth, PhD (Director)—interpretation and translation theory, translation, computer applications, Japanese, Russian  
J. Y. Lu-Chen, PhD, Certificate in I and T—translation and technology, translation pedagogy  
S. Zeng, PhD, Certificate in I and T—translation and interpretation theory, consecutive and simultaneous interpretation, community and court interpretation, community and court interpretation, Mandarin

**The Academic Program**

Translation and Interpretation (TI) is the study of appropriateness in interlingual and cross-cultural communication. Translation students focus on written work. They acquire basic knowledge of computer-assisted tools and programs that facilitate translation, as well as an understanding of analytical and research techniques needed for translating written texts. Interpretation students focus on oral work. They learn the techniques needed to facilitate interpersonal, interlingual oral communication. Both fields of study emphasize sociolinguistic and communication skills and techniques needed to facilitate cultural, scientific, and technical exchanges in cross-cultural and multinational settings.

The Center for Interpretation and Translation Studies was established at UH Mānoa within the College of Languages, Linguistics and Literature in 1988. The center’s primary goal is to provide, through theoretically based academic programs, basic training in interpretation and nonfiction translation. Additional
objectives of the center include developing an interdisciplin-
ary research program and serving the community as a clearing-
house for information on professional resources and practices. It
also aims to provide the community at large with a broad range
of educational opportunities by sponsoring lectures, seminars,
and workshops. For the latest information, please visit the cen-
ter’s webpage at cits.hawaii.edu.

The center’s training focuses on the three major Asian
languages, as well as Pacific Island languages. Our introdutory
courses are open to any language speaker; however, certification
is offered in limited languages. A bachelor’s degree is available
through Interdisciplinary Studies.

Journalism
School of Communications
College of Social Sciences
Crawford 320
2550 Campus Road
Honolulu, HI 96822
Tel: (808) 956-8881
Fax: (808) 956-5396
Email: jour@hawaii.edu
Web: www.communications.hawaii.edu

Faculty
A. Auman, PhD—multimedia reporting, news editing, publication
design, media futures
G. Y. Kato, MA—broadcast news, law, reporting
K. Kawamoto, PhD—digital media/health communication
D. Pike, PhD—journalism, critical analysis of media

Degree Offered: BA in journalism

The Academic Program
Journalism (JOUR) education develops the student’s criti-
cal thinking skills and ability to gather, analyze, and organize
information and to communicate it clearly, effectively, and re-
sponsibly using multiple media platforms. Journalism education
embraces the social, cultural and historic contexts of reporting
on public and social institutions as well as on individuals
and groups. It stresses the importance of a free, vigorous and respon-
sible press to the maintenance of an informed citizenry in order
to exercise the rights of self-governance in a democracy. Students
learn how journalists also contribute to life-long learning
through reports that enlighten and enliven audiences, whether
in print, broadcast, online, or other new media formats.

The journalism degree program is professional in its orienta-
tion and accepts a limited number of students each fall into a
two-year program. Admission to the major requires sophmore
standing with a minimum 3.0 GPA. Majors must follow the
prescribed course sequencing to remain in the program.

Students are encouraged to work for campus media such as
Ka Leo O Hawai‘i or KTUH-FM news and to participate in
an extensive program of professional internships and the UH
Mānoa chapter of the Society of Professional Journalists (SPJ).

Advising
Advising is mandatory for all journalism majors.

Undergraduate Study
Bachelor’s Degree

Requirements
■ Admission to the major is restricted to students with
sophmore standing and at least a 3.0 GPA and two years
remaining at UH Mānoa. Admission in fall semester only.
■ 33 credit hours minimum in journalism courses, following a
prescribed sequence.
■ Majors must follow the prescribed course sequencing to
remain in the program.
■ All students enrolled in journalism classes requiring off-
campus assignments must sign a UH Waiver Form—
Assumption of Risk and Release.

For information on a Bachelor Degree Program Sheet, go to
www.manoa.hawaii.edu/ovcaa/programsheets/.

Required Courses
■ JOUR 301, 302, 401, 402, each 6 credits
■ JOUR 365, 460, each 3 credits
■ 3 credits of electives or internship (JOUR 485)

Languages and Literatures of Europe and the Americas
College of Languages, Linguistics and Literature
Moore 483
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-8520
Fax: (808) 956-9536
Email: llea464@hawaii.edu
Web: manoa.hawaii.edu/llea

Faculty
*R. J. Ball, PhD (Chair)—Latin literature, Augustan poetry, teaching
methodology, classical tradition, biographical scholarship
*L. V. Aranda, PhD—U.S. Latino literature, translation
*A. Ascunce, PhD—19th, 20th, and 21st-century Spanish literature
and cultural studies
*C. D. Beaule, PhD—Latin American (Andean) anthropology,
household archaeology
*V. H. Bennett, PhD—Russian language and literature, 19th-century
Russian literature, Russian symbolism, modernism and literature of
the 1920s
*J. E. Brown, PhD—Russian language and literature, 19th-century
Russian literature and poetics
*P. M. Chandler, PhD—second language acquisition, applied Spanish
linguistics, Portuguese language
J. M. Debrah, MA—French language instruction
*M-J. Fassiotto, PhD—18th-century French literature, oral
genres, Italian
*C. R. Gerhardt, PhD—20th-century German literature, culture, and
film

* Graduate Faculty
Studies, U.S. Latino Culture and Literature, Indigenous Peoples representation, culture, and identity include Hispanic Cultural studies courses that use a strong interdisciplinary approach. Russia, Spain, and Wales are offered in the original language, as are phone world, German-speaking countries, Italy, Latin America, and Spanish. Courses in the literatures of France, the Franco conversation and linguistics are offered in French, German, Russian, and Spanish. Advanced courses in composition, con Language instruction at the beginning and intermediate levels and Spanish/Portuguese/Latin American and Iberian Studies.

The Academic Program

The Department of Languages and Literatures of Europe and the Americas (LLEA) is divided into five divisions: Classics (ancient Greek and Latin), French/Italian, German, Russian, and Spanish/Portuguese/Latin American and Iberian Studies. Language instruction at the beginning and intermediate levels is offered in French, German, Greek, Italian, Latin, Portuguese, Russian, and Spanish. Advanced courses in composition, conversation and linguistics are offered in French, German, Russian and Spanish. Courses in the literatures of France, the Franco-phone world, German-speaking countries, Italy, Latin America, Russia, Spain, and Wales are offered in the original language, as are courses in the literatures of ancient Greece and Rome. Cultural studies courses that use a strong interdisciplinary approach and critical interpretive perspectives to consider the politics of representation, culture, and identity include Hispanic Cultural Studies, U.S. Latino Culture and Literature, Indigenous Peoples of Latin America, Latin American Cultural Perspectives, Spanish Cultural Perspectives, Freaks and Monsters, the Ethics of Otherness, French Civilizations, French Culture for Americans, French and Italian Literature as Film. Courses designed to acquaint students from other fields with the traditions and cultures of Europe and the Americas are also available, both in English and in the target language and in advanced courses in specialized topics: Europeans in the Pacific, French and German Civilization, and Russian Arts and Culture.

LLEA believes that the study of film allows for an array of interdisciplinary considerations ranging from the aesthetics and politics of representation to the socioeconomics of production and distribution. It enriches students’ literacy concerning visual arts, narrative, sound, movement and space, at the same time that it provokes their questioning of ethical, critical, social and moral assumptions. LLEA offers a wide range of courses focusing on the aesthetic and historical development of film in Europe and Latin America: History of World Film, International Film Criticism, Francophone, German, Italian, Latin American, Russian, and Spanish Film.

MA programs are offered in French and Spanish. In addition, BA degrees and certificate programs are offered in Classics, French, German, Russian, and Spanish. The department promotes language proficiency and cultural awareness through its sponsorship of student organizations, films, lectures, scholarships, and Study Abroad programs. Currently, the department supports programs in France (Angers, Annecy, Paris); Florence, Italy; Berlin, Germany; Vladivostok, Russia; and several sites in the Spanish-speaking world.

Undergraduate Study

Bachelor’s Degree

A minimum GPA of 2.5 in courses counted toward the major is required of all students earning their major in this department. At least half the credits required for the major must be taken at UH Mānoa.

BA in Classics

- 30 credit hours of Greek and/or Latin courses—24 numbered 300 and above, plus GRK 101-102 for those emphasizing Latin, and LATN 101-102 for those emphasizing Greek.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BA in French

- 33 credit hours of FR, exclusive of FR 101, 102, 201, and 202
- FR 311, 312, 331, and 332
- Four French 400-level courses, including three on literature

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BA in German

- 30 credit hours of courses numbered 300 and above
For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**BA in Russian**
For a language emphasis:
- 30 credit hours of courses above RUS 202
- 6 credit hours of LLEA Russian-related courses
For a literature emphasis:
- 18 credit hours of language beyond the 202 level
- 18 credit hours of literature (including 6 credit hours of LLEA Russian-related courses)
For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**BA in Spanish**
- 33 credit hours above the 200 level
  - SPAN 301, 302, 303, 351, 352
  - SPAN 361 or 362
  - SPAN 371 or 372
  - Two 400-level courses
  - Two electives

Language skill courses (SPAN 301 to 303) are normally limited to nonnative speakers of Spanish. Native and near-native speakers should consult a department advisor to determine what courses they may take.

Recommended courses for prospective teachers: SPAN 330, 400, 403, 451, and 452
Recommended courses for prospective graduate students: SPAN 330, 351, 352, 451, 452, and two 400-level literature courses

Approved study abroad in a Spanish-speaking country is recommended for all students completing the major and the certificate.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Certificate**
A minimum GPA of 2.5 in courses counted toward the certificate is required of all students earning their certificate in this department. At least half the credits required for the certificate must be taken at UH Mānoa.

**Certificate in Classics, French, German, Russian, or Spanish**
Upon recommendation of the appropriate division chair of the Department of Languages and Literatures of Europe and the Americas, UH Mānoa confers Certificates in Classics, French, German, Russian, Spanish Studies, and Spanish. Students must complete 15 credit hours of courses numbered 300 and above. For the Certificate in Classics, students may complete 12 credit hours of Greek or Latin courses numbered 300 and above, plus GRK 101-102 for those emphasizing Latin and LATN 101-102 for those emphasizing Greek.

**Certificate in Latin American and Iberian Studies**
The Certificate in Latin American and Iberian Studies provides a systematic program of study in English for students interested in the arts, traditions, values, histories, religions, socioeconomic systems, and mythologies of Latin America and the Iberian Peninsula. It combines studies on literature, history, anthropology, film and cultural studies for a richer and more comprehensive understanding of the peoples and heritage of Latin America and Iberia. Its interdisciplinary nature treats issues of colonization, imperialism, race, ethnicity, class, neoliberal practices, aesthetics, popular culture and globalization as they have been played out within the Ibero-Latin context.

The requirements for the certificate in Latin American and Iberian Studies are:
- sophomore standing or consent
- 15 credit hours
- LAIS 360 (Alpha) Studies in Culture: (B) Latin America, or (C) Iberian Peninsula (should be taken the first semester in the program; it may be taken concurrently with one of the electives)
- at least one from LAIS 360B, 362, 363, 366, 372, 478, LAIS 468/HIST 478, HIST 386/ANTH 386, HIST 479
- at least one from LAIS 360C, 361, 365, 380, 495, HIST 448

**Graduate Study**

**Master’s Degree**
LLEA has designed MA programs that combine the study of language and literature with other forms of expressive culture in their permutations in the specific geographic regions of Europe, the U.S., Latin America, the Pacific Basin, and Africa. Graduate students are offered the following opportunities: an MA degree in French or Spanish; graduate teaching assistantships on a competitive basis; preparation for a PhD program and a career in teaching. Former students have found careers in government and foreign service; editing, publishing, and translation; law, business, and international banking; fashion, the arts, and travel industry.

**Admission Requirements**
In addition to meeting the requirements of the Graduate Division, applicants must have the following:
1. A major or its equivalent in French or Spanish with a minimum GPA of 3.0 (B); applicants in French should also have taken a course in French phonetics;
2. For Spanish, the competence equivalent to two years of study at the college level in a second foreign language; applicants in French who plan to go on to a doctoral program are strongly encouraged to develop reading competence in an additional language;
3. For French and Spanish, an acceptable accent and fluency.

Applicants with minor deficiencies may be accepted provisionally, but coursework taken to make up deficiencies may not be counted toward satisfaction of the degree requirements. Applicants accepted provisionally are expected to complete any deficiencies by the end of the first year of study.

**Additional Requirements**
All students are required to satisfy the remaining specific requirements and to pass the comprehensive examinations in their area of concentration.

Students who select Plan A (thesis) in their area of concentration must present a thesis proposal, including justification of the topic and a bibliography, for approval by the thesis director and two members of the thesis committee before the end of the second semester of work. The completed thesis must be presented to the thesis committee at least four weeks before the
Graduate Division deadline. The Graduate Division requires all theses to be written in English.

French Requirements
Candidates in French may select Plan A (thesis) or Plan B (non-thesis). Candidates in both plans are required to take 30 credit hours. A minimum of 18 credits must be earned in courses numbered 600 and above, including 15 credits in French and at least one graduate seminar. All candidates must take either FR 409 or FR 661. Up to 6 credit hours of LLEA 600-level courses may also be included, in which candidates in French are expected, whenever possible, to read French language texts in the original. Candidates selecting Plan A (thesis) must complete 6 credit hours of LLEA 700 (Thesis Research). All candidates must pass a final comprehensive examination, covering the major periods and genres of French literature and including the history of the language.

Spanish Requirements
Candidates in Spanish may select Plan A (thesis) or Plan B (non-thesis). Candidates in both plans are required to take 30 credit hours. A minimum of 18 of these credits must be numbered 600 and above, including at least one graduate seminar. Candidates selecting Plan A (thesis) must complete 6 credit hours of LLEA 700 (Thesis Research). Spanish graduate assistants are also required to take a course in language teaching methodology approved by the Spanish graduate faculty (e.g., SPAN 658 [Seminar in Spanish Linguistics] or LLL 455 [Second Language Learning and Teaching Methodology]). Candidates of both plans must pass a final comprehensive examination, covering the minimum reading list and is tailored to fit the background and coursework of the individual candidates.

Library and Information Science
College of Natural Sciences
Hamilton Library, Ground Floor
2550 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-7321
Fax: (808) 956-5835
Email: slis@hawaii.edu
Web: www.hawaii.edu/lis/

Faculty
*A. Wertheimer, PhD (Chair)—history of libraries, print culture and professional education
*N. Asato, PhD—Japanese librarianship, research methods
*D. Bair-Mundy, PhD—information systems
*R. Gazan, PhD—social aspects of information technology
*V. Harada, EdD—school library administration, information literacy
*P. Jacsó, PhD—online technology, computer system analysis, databases
*R. Knuth, PhD—history of libraries, international librarianship
*D. Nahl, PhD—information services, human-system interaction
*L. Quiroga, PhD—information retrieval, databases, library systems

Adjunct Faculty
L. Bell, CASIT, MLS—Lecturer, San Jose State University
J. Campbell-Meier, PhD—Assistant Professor, University of Alabama
M. Chopey, MLS—cataloging, Hamilton Library
M. Clark, MLS, CA—Collections Manager, Shangri-La, Doris Duke Charitable Foundation
S. Dawrs, MLIS—librarian, Hamilton Library
D. Dunn, MLIS—preservation educational specialist, Conservation, Hamilton Library Treatment, Hamilton Library
N. Fujii-Babb, MLS—librarian, Salt Lake/Moanalua Public Library, retired
G. Geary, MLS—Interim University Librarian, Hamilton Library
J. Hori, MLS—curator, Hawaiian Collection, Hamilton Library
J. Kamiya, MLS—young adult librarian, Mānoa Public Library
C. Kellett, MLIS—systems librarian, Library Information Technology, Hamilton Library
D. Minatodani, MLIS—librarian, Hawaiian Collection, Hamilton Library
K. Muronaga, MLIS—school library media specialist, retired
S.N. Naluai, MLIS—Librarian, Kamehameha Elementary Division
A. Olden, PhD—Senior Lecturer, University of West London
R. Pagell, MBA, MS(LIS), MAT—Former University Librarian, Singapore Management University
R. Paseng, MA, MLIS—Southeast Asia specialist, Hamilton Library
B. Richardson, PhD—Dean of Academic Affairs, Windward Community College
S. Rutter, MLIS—Science and Technology, Hamilton Library
G. Sinclair, MLIS—librarian, Government Documents, Hamilton Library
D. Skeem, MLSc, CA—Archivist, Hamilton Library
D. Sueoka, MLSc, CA—Doris Duke Charitable Foundation
M. Trafford, MLS—Medical Library, Tripler Army Medical Center

* Graduate Faculty
The Academic Program

Founded in 1965, the Library and Information Science (LIS) Program prepares professionals for work in libraries and other types of information-handling agencies. It currently offers a master’s in library and information science (MLISc) and a Certificate in Advanced Library and Information Science and participates in an interdisciplinary doctoral program in Communication and Information Sciences. The LIS program is aware of the opportunities and the responsibilities inherent in its Pacific setting and the unique cultural amalgam of Hawai’i. Its major goals are:

1. To furnish students with the knowledge, skills, and attitudes that are basic to professional competence and career-long professional growth in the field of library and information services.
2. To expand the knowledge base of the profession through research.
3. To share its resources by extending services to the UH and its academic units and to the people of Hawai‘i and beyond.

Graduate Study

Master’s Degree

The MLISc degree program was first accredited by the American Library Association in 1967 and was reaccredited in 1964, 1980, 1986, 1996, 2000, and 2009. The curriculum is subject to continuous review and modification, and every effort is made in academic advising to ensure that students plan programs of study suited to their individual goals. Entering students are expected to be computer literate. Graduate standing is the normal prerequisite for all courses.

Degree Requirements

Students are required to take the following courses:

- LIS 601 Introduction to Reference & Information Services
- LIS 605 Basic Cataloging & Classification
- LIS 610 The Information Environment
- LIS 615 Collection Management

In addition, they must take one of the following:

- LIS 650 Management of Libraries & Information Centers
- LIS 684 Administration of School Library Media Centers

And at least two of the following:

- LIS 647 Systems Analysis for Information Management
- LIS 663 Basic Database Searching
- LIS 670 Introduction to Information Science & Technology
- LIS 671 Digital Librarianship
- LIS 672 Technology for Libraries & Information Centers
- LIS 678 Personalized Information Delivery

Plan A (Thesis)

The normal requirement for the MLISc degree under the thesis option is a minimum of 42 credit hours of approved graduate study. At least 27 credits must be taken in LIS courses or a combination of LIS and approved information and computer sciences courses. In addition, 3 credit hours in LIS 695 Seminar in Research in Librarianship and 6 credit hours in LIS 700 Thesis Research must be taken. No directed reading credits are allowed as part of thesis research.

General examination is not required for admission to candidacy. After completing 15 credits of course work, students are advanced to candidacy upon the recommendation of the program’s graduate faculty. The oral examination is not required, but research results will be presented at a student-faculty colloquium.

Plan B (Non-thesis)

The normal requirement for the MLISc degree under the non-thesis option is a minimum of 42 credit hours of approved graduate study. At least 36 credits must be taken in LIS courses or in a combination of LIS and approved ICS courses. Up to 6 credits may be taken in other schools or colleges when the courses are relevant to the individual student’s specialization and approved by the LIS program chair and the Graduate Division.

The maximum course load is 15 credit hours per term. Therefore, 42 credit hours would require at least two terms and a summer. A full load is a minimum of 8 credit hours per term. The program may be undertaken on a part-time basis but must be completed within five years (a two-year extension is allowed by the Graduate Division for a total of seven years).

Students who were in MLISc-degree programs from other ALA-accredited library programs may, in special circumstances, transfer up to 21 credit hours toward their MLISc degree at UH Mānoa, provided the work to be credited has been completed within the time limit previously cited. Such requests must be included in the application.

Comprehensive Examination

All Plan B students are required to take an oral comprehensive examination as a requirement for the MLISc degree. The examination is taken during the semester the student expects to graduate.

Distance Education

The MLISc program utilizes the Hawai‘i Interactive Television System (HITS) to deliver courses to remote sites in the state. LIS has been one of the pioneers on campus in using this innovative instructional delivery system. It currently offers approximately 40 percent of its courses through HITS; at least two courses are available through HITS each fall and spring, and two during summer sessions. Additional courses are delivered online via Halawai and other modes.

Dual Master’s Degree Programs

Students may pursue the MLISc degree and a second master’s concurrently, cooperating with the following departments and fields of study: information and computer sciences (MS), history (MA), Pacific Islands studies (MA), American studies (MA), Asian studies (MA), educational technology (MEd), and Law (JD). For more information on these programs, contact the LIS program chair or the other respective departments.

Doctoral Degree

Interdisciplinary Doctoral Degree Program

LIS participates in an interdisciplinary PhD program in Communication and Information Sciences (CIS) integrating computer science, communication, library science, and management information systems. Because of the broad knowledge
base required to support the interdisciplinary approach, the program also draws on political science, economics, engineering, operations research, and behavioral sciences. This unique program is sponsored by four academic faculties: communication, information technology management, information and computer sciences, and library and information science.

For information on admission and requirements, refer to the "Communication and Information Sciences" in the Interdisciplinary Programs section.

**School Library Media Specialist Licensure**

The LIS program recommends graduates to the Hawai'i Department of Education for certification as school library media specialists. To be eligible, graduates must meet the MLISc degree program requirements and the course requirements approved for certification by the Hawai'i Department of Education. The National Council for Accreditation of Teacher Education (NCATE) is used in conducting periodic reviews of the program.

A student who enters the LIS program to earn this certification must have completed a state-approved teacher education program. For more specific and current information on prerequisites and required as well as recommended LIS courses, contact the LIS program chair.

**Certificate Program**

The Certificate in Advanced Library and Information Science (CALIS) offers two options. Option A is available for those who complete a successful, coherent program of specialized study and research beyond the MLISc degree. The program allows for specialization in 1) applying computer and information technologies to information environments, and 2) extending information management skills in information system design, evaluation, and the development of user services.

Option B focuses on school librarianship. It allows for specialization in 1) applying computer and information science technologies in elementary and secondary school libraries, and 2) extending curriculum planning skills in information literacy and general literacy instruction.

For both options, students must complete a research paper that meets the approval of the CALIS committee and give an oral presentation of their research to students and faculty. Students are expected to remain enrolled each semester until the requirements are completed. If it is necessary to withdraw temporarily, students must reapply for admission within application deadlines before returning. Credits more than five years old cannot be applied to the certificate requirements; thus, the program must be completed in five years. For more specific information on prerequisite and elective courses, contact the LIS program chair.

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**Linguistics**

College of Languages, Linguistics and Literature
Moore 569
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-8602
Fax: (808) 956-9165
Email: linguist@hawaii.edu
Web: www.ling.hawaii.edu

**Faculty**

*K. L. Rehg, PhD (Chair)—phonology; Micronesian linguistics; lexicography; endangered and underdocumented languages; language contact; language planning; vernacular language education.

*P. J. Donegan, PhD (Co-Graduate Chair)—phonology and phonetics; vowel systems; acquisition; variation and change; typology; Austroasiatic languages, language documentation.

*A. M. Peters, PhD (Co-Graduate Chair)—language acquisition; prosody, emergence of grammatical morphemes, crosslinguistic issues.

*V. B. Anderson, PhD—phonetics-phonology interface, phonetic and phonological universals, prosody, Austronesian and Australian languages, endangered languages, speech technology.

*A. L. Berez, PhD—language documentation; language technology; Athabaskan languages; geography and language; discourse; intonation; language change; functional approaches to grammar.

*R. A. Blust, PhD—historical linguistics; Austronesian linguistics and culture history; field methods; lexicography; endangered and underdocumented languages.

*L. R. Campbell, PhD—language documentation, historical linguistics, endangered languages and language revitalization, typology; field methods, American Indian languages.

*K. Deen, PhD—language acquisition, morphosyntax, Bantu languages; second language acquisition.

*K. K. Drager, PhD—sociophonetics; language and identity; psycholinguistics; speech perception; acoustic phonetics; laboratory phonology; language revitalization.

*W. D. O’Grady, PhD—syntactic theory and description, language acquisition, Korean, assessment of language strength.

*Y. Otsuka, DPhil—syntax; Minimalist Program; Tongan and Polynesian languages; endangered and underdocumented languages and language planning in Polynesia.

*A. J. Schafer, PhD—sentence comprehension and production across languages (including Korean, Japanese, and Austronesian languages); sentence prosody; information structure; psycholinguistic approaches to language documentation and conservation.

J. Tertell, MA—language documentation; case and voice systems; tones; typology; sociolinguistics; language planning and policy; economics; North Korea; Southeast Asia.

**Linguists in Other Departments**

*R. Bley-Vroman, PhD—applied linguistics; syntax; second language acquisition theory; computational linguistics; natural language processing; corpus linguistics, and machine translation.

*H. M. Cook, PhD—Japanese linguistics, sociolinguistics, discourse analysis and pragmatics.

* Graduate Faculty
Linguistics is relevant to many endeavors, including cognitive science, language planning, language teaching, speech synthesis and recognition, treatment of language disorders, repair of communication breakdowns, and information technology. Our program presents unique opportunities for the study of Austronesian (Malayo-Polynesian) and Asian languages. It also has special strengths in language acquisition, psycholinguistics, sociolinguistics, and language documentation and conservation.

Our program is recognized as being among the top twenty-five in the U.S.

Advising

All faculty in the Department participate in the advising of students majoring in Linguistics. Undergraduates majoring in Linguistics under the Interdisciplinary Studies Program are advised initially by the undergraduate advisor. Graduate majors are advised by the chair of the graduate field of study or by one of the language documentation faculty. Students are later assigned to specific faculty members for advising according to their special interests.

Undergraduate Study

Bachelor’s Degree

Students may obtain a BA degree with a linguistics major at UH Mānoa through the Interdisciplinary Studies Program. See www.hawaii.edu/is/genInfo/applying.htm. In this program, with the guidance of a faculty advisor, students create for themselves a major that may combine the study of linguistics with related disciplines, such as anthropology, second language studies, or psychology, or with the study of one or more foreign languages. Students majoring in linguistics in this way may include some or all of the MA core of courses in their BA program, and are thus able to do more advanced work, should they continue with an MA.

Graduate Study

The faculty represents a variety of theoretical viewpoints. The various faculty members are especially well qualified to direct research on languages of the Pacific and parts of Asia. Fields of special competence include descriptive and comparative linguistics, general linguistic theory, language contact and variation, ethnolinguistics, language development, experimental phonetics, psycholinguistics, sociolinguistics, and cognitive linguistics.

Students admitted to graduate programs in linguistics normally have a background in at least one foreign language. Some background in mathematics or one of the sciences may also be useful. Students entering without a course equivalent to LING 320 are required to take this course to make up for this deficiency in their preparation for graduate work.

The GRE General Test is required of all applicants. Both the MA and the PhD degrees are offered.

The MA program provides a basic introduction to the subject matter and skills of the discipline. The PhD program provides full professional training for careers in research and teaching. Employment opportunities for graduates of both programs today often require additional knowledge of one or more related disciplines. Students are therefore encouraged to
broaden their training in linguistics by including work in other disciplines. Such programs, and those that include many of the specializations listed above, will involve the inclusion of faculty members from other fields of study on students’ program committees. Students should make known their interests to the graduate chair as early as possible so that appropriate advisors can be chosen to direct students to courses, and any key prerequisite courses, that will help them explore their interests further. It is also possible for students to include concentrations in linguistics in their programs for the MA degree in Asian studies or Pacific Islands studies.

The guidelines listed below are offered to guide students in their preparation for the various examinations, although individual study must be done in areas not covered by course offerings. Courses bearing the 700-level numbers are seminars, and various sections of these seminars are typically offered in a given semester, depending on the interests of the resident faculty and students. Each semester there are normally a number of seminars dealing with geographical areas, particular language families, the structures of individual languages, and particular theoretical problems. A major portion of the work done beyond the MA level is in seminars and in directed research.

**Master’s Degree**

**Requirements**

The department offers MA Plan A, Plan B, and Plan C programs. In addition to the University-wide residence requirements of a minimum of two semesters of full-time work, all three programs require that students demonstrate competence in one language other than their native language.

- **Plan A** requires a thesis (9 credit hours) and a minimum of 21 credit hours of course work. A final oral examination covering the thesis and related areas is also required.
- **Plan B** requires a minimum of 30 credit hours plus a final project near the end of course work.
- The required 30 hours of course work must be taken for a letter grade (not CR/NCR or Audit), of which 18 hours must be at the 600-level or above, including 3 hours of a 700-level seminar. Students may choose between three “streams”: Linguistic Analysis, Experimental Linguistics, and Language Documentation and Conservation. For all streams there is a Core List from which different numbers of courses are to be selected. For details, see our MA manual, via www.ling.hawaii.edu/graduate/pdfs/MAmanual.pdf.
- **Plan C** requires two semesters of full-time course work in addition to a final examination with both written and oral portions. Plan C is open to select students who have had some previous work in linguistics and who show high potential for scholarly development and the motivation and discipline necessary for an independent course of study. A committee of faculty is appointed for each prospective student for Plan C. The committee administers a general examination during the student’s first semester of study to determine the appropriateness of Plan C, advises the student in developing a program of study, and administers the oral portion of the final examination.

**Doctoral Degree**

**Requirements**

All students in the PhD program are required to complete a minimum of 33 credit hours of course and seminar work at the University of Hawai‘i (exclusive of LING 800) beyond those counted towards the MA degree. Courses in phonology (LING 621), grammar (LING 622), and a Methods course are required of all PhD students. Methods courses include LING 630 Field Methods; LING 632 Laboratory Research; LING 750F Phonetic Fieldwork on Endangered Languages; LING 750Q Methods in Language Acquisition; and LING 750Y Psycholinguistics. Students interested in experimental research are strongly advised to take one or more courses in statistical analysis as well (e.g., EDEP 429, SLS 490 or SLS 671.)

All PhD candidates must demonstrate competence in one language other than their native language. Students may demonstrate their language knowledge either by taking a reading/translation test involving a linguistics-related passage or by having satisfactorily taken courses in the language through the 202 level. Foreign students may use English if it is not their native tongue; certification by the English Language Institute that they are exempt from ELI courses suffices to establish their competence in English.

PhD students must present two professionally written papers, pass a comprehensive examination, and pass a final oral examination in defense of the dissertation.

For details, see our PhD manual, via www.ling.hawaii.edu/degrees-and-requirements#phd.

**Mathematics**

College of Natural Sciences
Keller 401-A
2565 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-4680
Fax: (808) 956-9139
Web: www.math.hawaii.edu

**Faculty**

- L. Thomas Ramsey, PhD (Chair)—harmonic analysis
- C. Allday, PhD—algebraic topology, transformation groups
- M. Chyba, PhD—control theory
- T. Craven, PhD—commutative algebra
- G. Csordas, PhD—complex function theory
- K. Doerr, PhD—algebraic topology
- A Faber, PhD—number theory, algebraic geometry
- R. Freese, PhD—lattice theory, general algebra
- E. Guentner, PhD—geometrical functional analysis
- P. Guerzhoy, PhD—number theory
- T. Hangelbroek, PhD—approximation theory
- H. Hilden, PhD—geometric topology
- B. Kjos-Hanssen, PhD—computability, logic, probability
- R. Little, PhD—algebraic topology
- M. Manes, PhD—number theory
- D. Myers, PhD—mathematical logic
- J. Nation, PhD—lattice theory

* Graduate Faculty
Degrees Offered: Undergraduate Certificate in Mathematical Biology, BA (including minor) in mathematics, BS in mathematics, MA in mathematics, PhD in mathematics

The Academic Program
The mathematics (MATH) program offers preparation in the full spectrum of mathematical sciences, including algebra, geometry, differential equations, real and complex analysis, topology, logic, number theory, and probability and statistics, as well as various topics in applied mathematics. Mathematics majors begin with the study of calculus and linear algebra. After completion of these fundamental courses, students may choose to specialize. The department advises each prospective major on requirements and course options to meet his or her needs and interests. Departmental advisors are also available every day to all students.

Depending upon individual interest, students of mathematics may pursue careers in a variety of fields such as teaching, computer science, operations research, statistics, business, and economics. In addition, students who continue on to the graduate program may choose to become professors and/or research mathematicians. The faculty has the competence and resources required to provide the basic mathematical preparation required for any of these professions.

A goal of all non-survey mathematics courses is the development of precision of thought and expression. This receives special emphasis in the many writing-intensive courses the department offers.

Undergraduate Study

BA Degree

Requirements
Students must complete 21 credit hours in mathematics courses numbered above 300, including:
- MATH 321
- MATH 480
- 3 credit hours in a writing-intensive mathematics course
- 6 credit hours in courses numbered above 400
- 6 credit hours in a sustained two-course sequence approved by the department and completed within one year
- Only courses in which a student earns a grade of C (not C-) or better will be counted toward fulfillment of major requirements
- A cumulative 2.0 GPA in all completed upper division mathematics courses is required
- All mathematics majors are required to see a mathematics advisor each spring semester prior to fall registration

For information on a Bachelor Degree Program Sheet, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_math.asp#MATH_SCHED.

BS Degree

Requirements
Students must complete 24 credit hours in mathematics courses numbered above 300 and 15 credit hours in additional upper division mathematics courses or appropriate non-introductory courses in related fields including:
- MATH 321
- MATH 480
- 6 credit hours in writing-intensive mathematics courses
- 6 credit hours in a sustained two-course sequence approved by the department and completed within one year
- Only courses in which a student earns a grade of C (not C-) or better will be counted toward fulfillment of major requirements
- A cumulative 2.0 GPA in all completed upper division mathematics courses is required
- All mathematics majors are required to see a mathematics advisor each spring semester prior to fall registration

Students must also demonstrate the ability to program scientific problems on a computer.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_math.asp#MATH_SCHED.

Minor

Requirements
Students must complete MATH 243 or 253A plus 12 credit hours in mathematics courses numbered above 300, including:
- 3 credit hours in a writing-intensive mathematics course
- 6 credit hours in courses numbered above 400

Undergraduate Certificate in Mathematical Biology

The purpose of the certificate is to induce students to pursue the interdisciplinary study of biology and mathematics together with research. The coursework will be similar to, but less than, that required to receive a minor in mathematics or biology. However, the students will also have to do a substantial amount of research in addition to the coursework. The emphasis in the certificate is different, however, in that the majority of the work is interdisciplinary.

Students will be considered accepted into the Mathematical Biology Certificate Program upon formal request for acceptance and completion of either MATH 304 or 305 with a grade of C or better. To receive the certificate, students must complete 15 credits of approved coursework with no grade below a C and attain a GPA of 2.5 in the collection of courses used to satisfy the certificate requirements. Due to the interdisciplinary nature of the certificate, 6 credits of required electives will differ depending on a student’s major. Courses used towards the certificate can only be double-dipped with focus requirements.
**Prerequisites to the Certificate**
- BIOL 171 (lab not required)
- CHEM 161 or 171 (lab not required)
- year of calculus (MATH 215/216, MATH 241/242, MATH 251A/252A)
- electives may have additional prerequisites

**Requirements for the Certificate (15 credits)**
- required courses (9 credits): MATH 304, 305, MATH/BIOL 490 (capstone)
- math majors (6 credits): BIOL 172, and 265 or 275 (lab not required)
- life science majors (6 credits): two courses selected from MATH 243/253A, 301, 302, 303, 307, 311, 371, 373, 402, 403, 407, 414, 416, 471, 472
- other majors: completion of above required courses, and at least 6 credits of electives approved by the Committee

Participate in an interdisciplinary Mathematical Biology research project is required. These projects must be substantial, requiring at least the effort of a 5 credit 400-level course; examples include a senior honors research project, summer Research Experiences for Undergraduate programs, and the Undergraduate Biology and Mathematics Research Program; students are advised to discuss their projects with an advisor from the Mathematical Biology Certificate Coordinating Committee before commencing. A research paper based on this research project must be submitted to and approved by the Committee. Students are expected to present their research to an approved symposium or conference.

**Graduate Study**
Prospective graduate students are expected to have adequate undergraduate preparation in linear algebra, advanced calculus, and abstract algebra. Applicants must submit to the department their scores for the GRE General Test; applicants for the graduate assistant positions are strongly encouraged to submit scores for the subject test in mathematics as well. The department requires a score of at least 650 on the quantitative section of the GRE General Test for admittance as a regular student. The department requires a general examination of all incoming graduate students for course placement purposes. This diagnostic examination consists of two parts, algebra and analysis, and is designed to evaluate the student’s command of undergraduate mathematics in the areas of linear algebra, advanced calculus, and abstract algebra.

**Master’s Degree**

**Requirements**
Most MA students will select Plan B, which requires 30 credit hours of course work, including 611, 612, 631, and 644. Masters candidates must form a two member committee. The student is required to write and defend a paper on a research topic approved by the student’s master’s committee and the graduate chair. The defense will consist of a one hour public presentation on the chosen topic, followed by an oral exam. The department does not have a thesis option (Plan A), and only an exceptional student may be admitted to Plan C at the discretion of the graduate chair.

**Doctoral Degree**

**Requirements**
For the PhD degree, the department requires that the student show proficiency in one of the following languages: French, German, or Russian. Teaching experience is required of all PhD students. To be admitted to PhD candidacy, the student must satisfy the language requirements and pass three written examinations: (a) linear algebra and abstract algebra; (b) real analysis and the basic facts of complex analysis and general topology; and (c) a third field chosen by the student with the approval of the graduate chair. All new students in the PhD program shall complete a minimum of five mathematics department courses numbered between 600 and 690, other than 611, 612, 631, 632, 644, 649. These five courses may be taken under the CR/NC option. Exceptions: Up to two 3-credit 649 (alpha) seminars (meeting three hours/week) may be substituted for (up to) two of these required five courses, with the written approval of the graduate chair. Also, with the written approval of the graduate chair, credit may be given for equivalent courses taken in another mathematics department or for graduate-level courses taken in another department that are recommended by the student’s thesis advisor and directly related to the dissertation topic; such credit for graduate courses taken in another department is limited to a total of no more than two courses. The most important requirement for a PhD degree is the successful defense of a doctoral dissertation involving original mathematical research.

**Microbiology**

College of Natural Sciences
Snyder 207
2538 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-8553
Fax: (808) 956-5339
Web: www.hawaii.edu/microbiology/

**Faculty**
* P. Q. Patek, PhD (Chair)—cellular immunology
* M. Alam, PhD—microbial physiology, genomics, and bioinformatics
* S. M. Callahan, PhD—genetics, cellular differentiation, and coral microbiology
* S. Donachie, PhD—marine microbiology and microbial diversity
* J. T. Douglas, PhD—medical microbiology and infectious diseases
* T. T. Hoang, PhD—bacterial genetics and physiology
* H. Li, PhD—molecular virology

**Cooperating Graduate Faculty**
* S. N. Bennett, PhD—molecular evolution and epidemiology of infectious diseases
* D. Borthakur, PhD—molecular genetics of nitrogen fixation
* S. P. Chang, PhD—immunology, molecular biology, molecular approaches to vaccine development
* V. Hinshaw, PhD—virology, pathogenesis
* T. Humphreys, PhD—invertebrate immunity, evolution of the animal immune system
* J. C. Leong, PhD—virology and fish vaccines

* Graduate Faculty
Degrees Offered: BA (including minor) in microbiology, BS in microbiology, BS in molecular cell biology, MS in microbiology, PhD in microbiology

The Academic Program

Microbiology (MICR) deals with microscopic forms of life and their activities. Bacteria, algae, fungi, protozoa, and viruses are included in this discipline. The field is diverse and concerns the nature of microorganisms, as well as their interactions—both advantageous and adverse—with other organisms and with the environment. Entire academic disciplines and commercial enterprises are based on what microorganisms do. For example, the very forms that may cause infectious diseases and epidemics may also support industries that produce vaccines or antimicrobial agents. Microorganisms play an essential role in the cycling of the limited supply of nutrients available on Earth’s surface by decomposing plant residues and animal remains and by being primary producers of food in the oceans. Many microorganisms or their products may be eaten, drunk, used as fuel, or carefully disposed of as undesirable. They may be used to clean up the environment or controlled only with great effort to prevent corrosive, obnoxious, or destructive activities that they may bring about. Microbiology also deals with the physiology, biochemistry, genetics, and molecular biology of microorganisms. Many of the advances in DNA technology are mediated through bacteria, yeasts, and viruses; much of what we know about metabolism in general comes from their study.

Advising

Students can contact the department’s main office at (808) 956-8553 for information regarding advising services.

Undergraduate Study

Students must earn a grade of C (not C-) or higher in each course applied to the major, including required courses in CHEM, BIOL, PHYS, and MATH.

BA Degree in Microbiology

Requirements

Students must complete the following:

- 18 credit hours in microbiology, including required courses:
  - MICR 351/351L
  - Three courses from MICR 361, 401, 431, 461, 463, 470, 475, 485, and 490, plus 4 credits of associated laboratories

- The following required related courses:
  - BIOL 171, 172, 275 plus labs
  - CHEM 161/161L and 162/162L; or 181A/181L
  - CHEM 272/272L and 273
  - MATH 215 or 241

- 9 credits of approved major electives

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_micr.asp#MICR_SCHED.

BS Degree in Microbiology

Requirements

Students must complete the following:

- 23 credit hours in microbiology, including required courses:
  - MICR 351/351L, 431, 461, 475; and one course from MICR 361, 401, 463, 470, 485, or 490, plus 6 credits of 400-level MICR lab courses

- The following required related courses:
  - BIOL 171, 172, 275 plus labs
  - BIOC 441 or MBBE 402
  - CHEM 161/161L and 162/162L or 181A/181L
  - CHEM 272/272L and 273
  - MATH 215 and 216 or 241 and 242/242L
  - PHYS 151/151L or 170/170L, and 152/152L or 272/272L

- 6 credit hours of approved major electives

BS Degree in Molecular Cell Biology

The BS degree in Molecular Cell Biology (MCB) is designed to prepare students for careers in fields that require advanced knowledge of molecular biology, in particular those that relate to human health and welfare. Examples of such fields include, but are not limited to, medicine, pharmacology, pathology, genetic testing and counseling, biotechnology, nanotechnology, teaching, and basic research.

Requirements

Students must complete the following:

- 23 credits hours including required courses:
  - BIOL 375/375L, 407, 408, 408L
  - MBBE 402 or BIOC 441
  - MCB 314, 461, 472

- The following required related courses:
  - BIOL 171/171L, 172/172L, 275/275L
  - CHEM 161/161L and 162/162L or 181A/181L
  - CHEM 272/272L and 273
  - PHYS 151/151L or 170/170L, and 152/152L or 272/272L

- 10 credits of approved major electives

Major electives should be chosen with the assistance and approval of a department advisor to provide a well integrated and coherent program. Prospective majors should consult the microbiology/molecular cell biology advisors promptly, so as to design a curriculum that satisfies the major requirements.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_micr.asp#MICR_SCHED.
Minor in Microbiology

Requirements

Students must complete 15 credits of 300- and 400-level MICR courses, of which five credits must be MICR 351/351.

All prerequisites for these courses must be met. Persons wishing to complete the minor and graduate in four years should have completed CHEM 272, if possible, before the middle of the junior year.

Graduate Study

The department offers programs leading to the MS and PhD in microbiology with areas of specialization in microbial ecology, biochemistry, physiology, genetics, and ultrastructure; metabolic regulation and the regulation of gene expression; marine microbiology; medical microbiology; animal and environmental virology and viral pathology; and immunology, immunogenetics, and immunochemistry. In addition, an option is offered in cell biology that leads to the MS and PhD in microbiology. Research programs in interdisciplinary fields are possible. Graduate students in microbiology may join two interdisciplinary graduate specializations: the Ecology, Evolution, and Conservation Biology (EECB) Program, and the Marine Biology (MB) Program.

Applicants for advanced degree programs in the department must supplement the forms and transcripts required by the Graduate Division with three letters of recommendation and the official scores from the GRE General Test. These supplementary items should be sent directly to the department.

Complete details on the graduate program in microbiology and the availability of financial aid to prospective students are outlined in a departmental brochure available on request from the department, Snyder 207, 2538 McCarthy Mall.

Courses for the graduate programs are to be selected from the list below and from other graduate offerings in related disciplines as directed by the student’s advisor or advising committee. The following courses may be repeated: MICR 625, 632, 652, 671, 680, 681, 690, 699, 700, 795, and 800. However, repeated courses other than MICR 699, 700, 795, and 800 may only be used for credit once per degree. MICR 690 is a required course. Course deficiencies shall be made up before admission to candidacy.

Both the MS and the PhD are research degrees requiring a research project, a thesis or dissertation, and an oral defense. Prospective graduate students are encouraged to contact faculty or cooperating graduate faculty to determine whether there might be a laboratory that is conducting research of interest and to determine which laboratories are taking new students (see the department website at www.hawaii.edu/microbiology to find areas of research and faculty contact information).

Master’s Degree

Intended candidates for the MS degree should present a minimum undergraduate preparation in biological and physical sciences including biology, genetics, microbiology, organic chemistry, physics, and calculus. Deficiencies in some of these areas do not preclude admission. Qualified students with undergraduate majors in fields other than microbiology are welcome.

Requirements

Plan A Minimum Requirements - 30 credit hours

- 2 units of directed research (MICR 699);
- 1 credit of seminar (MICR 690);
- 6 credit hours of thesis (MICR 700);
- additional 12 credit hours of coursework at the 600 level or higher; plus
- 9 credit hours at the 400 level or higher

Note: 3 credit maximum of MICR 695 may be applied towards the MS Plan A degree.

Doctoral Degree

The doctoral degree (PhD) is offered in microbiology in the various areas of interest represented by research programs of the department’s graduate faculty.

Coursework requirements for a PhD are the same as those for the MS degree (with MICR 800 replacing MICR 700). However, consideration will be given to those who already possess an MS in Microbiology or closely related field.

Requirements

The PhD candidate must demonstrate the ability to do original experimental research and to produce an acceptable dissertation. A comprehensive examination, written and oral, is required, and the dissertation must be successfully defended before the faculty. Experience in teaching in a laboratory course is considered a desirable part of the training of the PhD candidate. The specific requirements for each of the joint degree programs are modified somewhat from those given above.

Music

College of Arts and Humanities
Music 3
2411 Dole Street
Honolulu, HI 96822
Tel: (808) 956-7756
Fax: (808) 956-9657
Email: uhmmusic@hawaii.edu
Web: www.hawaii.edu/uhmmusic

Faculty

*L. Paxton, MM (Chair)—voice performance
*T. Bingham, MA—music education
L. Boeckman, DMA—music education
M. Felipe, DMA—choral music
*H. Miyamura, MA—woodwind performance
*J. Korth, DMA—piano performance
*F. Lau, DMA—ethnomusicology
*B. W. Lee, PhD—ethnomusicology
*I. B. Lin, DM—strings performance
*C. Loong, PhD—music education
*B. P. McLain, PhD—music education
*K. McQuiston, PhD—musicology
*H. Miyamura, MA—woodwind performance
*J. Moulin, PhD—ethnomusicology
*J. Mount, MM—voice performance
*T. Osborne, DMA—composition/theory

* Graduate Faculty
Degrees Offered: BA (including minor) in music, BEd in elementary education (music), BMus in secondary education (music), BMus, MA in music, MMus, PhD in music

The Academic Program

The music (MUS) department offers the bachelor of arts in music, bachelor of music, master of arts in music, master of music, and doctor of philosophy in music. In conjunction with the College of Education, the department offers the bachelor of education in elementary education (music) and the bachelor of education in secondary education (music). Information about each of these programs may be found on the Music Department website: www.hawaii.edu/uhmmusic.

The department is housed in a complex of buildings, including studios, practice and rehearsal facilities, and the Mae Zenke Orvis Auditorium, noted for its fine acoustics. In addition to many offerings in Western classical, vocal, and instrumental music, the department specializes in non-Western music, notably the musics of Asia and the Pacific.

Accreditation

The bachelor’s, master’s, and PhD programs are fully accredited by the National Association of Schools of Music (NASM).

Advising

Students interested in majoring in music, minoring in music, or participating in various ensembles may obtain information at the department office and arrange to see a music advisor. Advising is mandatory for music majors and minors.

New Students

An orientation session for new students is held each fall during the week before classes begin. At that time, incoming students take theory, history, and piano placement tests and receive advising and approval for music courses.

Undergraduate Study

Bachelor degree concentrations include performance, composition, music education, and general music studies.

Specific course requirements are available on the Music Department website: www.hawaii.edu/uhmmusic. New and transfer students should attend orientation and consult the undergraduate chair when entering UH Mānoa.

Admission Requirements

In addition to the UH System Application form, prospective music majors must submit a Music Department Undergraduate Admission Application, recommendation form, and perform an audition. Forms and instructions are available from the department office and the department website at www.hawaii.edu/uhmmusic.

BA Degree

Requirements

Major requirements include 40 credit hours in various music courses. Bachelor of Arts majors work with an advisor to emphasize general music, Hawaiian music, or musical theater.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BMus Degree

Requirements

BMus candidates must complete 80 credit hours in music and major in composition or performance (piano, voice, and selected orchestral instruments).

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BEd Degree

Prospective music education majors should see the chair of the music education committee in the Department of Music for information and requirements. This degree program in elementary and secondary education is offered in conjunction with the College of Education.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

The major music requirements posted here are effective Fall 2012. Students who declared major before this date may have different requirements. Students are advised to meet with a major advisor regarding the specific requirements that apply to them.

Minor

Requirements

Students can pursue a minor in music while continuing their chosen major. The minor program requires a minimum of 15 credit hours. For further information, contact the music department office or view the website.

Graduate Study

Entrance exams for incoming students consist of the Diagnostic Exam to test for any deficiencies and insure that students remedy them as soon as possible in their degree programs. The General Exam (master’s level)/Qualifying Exam (doctoral level) is administered before candidacy for a degree.

Diagnostic Exam

Prior to enrolling for the first semester of study, each classified graduate student will take a diagnostic examination in music history (part I) and music theory (part II) to determine whether or not the general exams or qualifying exams in those areas (or specified courses in lieu of the general exams) are needed to clear pre-program deficiencies. Students are also tested in their area of concentration (part III). The purpose of this examination is twofold: (a) to assess the student’s background and determine if there are deficiencies that should be remedied, and (b) to assist the advisor and the student in planning a program of study. Detailed information about the examination is available on request. Successful performance on specific parts of the diagnostic examination exempts the student from the equivalent parts I and II of the general examination or qualifying examination.

The diagnostic/general/qualifying examination is offered in August (before the beginning of the fall semester), in January (before the beginning of the spring semester) and in the third week of April.
Students who enter in the fall semester will take the diagnostic examination in August. If the student does not pass any portion of the diagnostic examination, he or she may re-take the examination in January and April or take the recommended course(s) between August and May and clear deficiencies in the first academic year of study by earning a grade of B or higher.

Students who enter in the spring semester will take the diagnostic examination in January. If the student does not pass any portion of the diagnostic examination, he or she may re-take the examination in August and the following January or take the recommended course(s) between January and December and clear deficiencies in the first year of study by earning a grade of B or higher.

N.B. Students who enter in the spring semester will be exempt from taking the April examination and will not need to submit a petition for approval to the graduate faculty.

Dismissal from the graduate program will occur if the student does not pass any part of the diagnostic examination and then: (1) does not pass any part of the general examination or qualifying examination in two attempts; or (2) does not take the prescribed course(s) to clear deficiencies in their first year of study; or (3) does not earn a B or better in the prescribed course(s).

Students with deficiencies are strongly advised to take the recommended course(s). Students may also wish to study on their own and re-take the examination. Keep in mind that many classes recommended to rectify deficiencies are offered only once per year. The student should consult with his or her advisor to discuss the most suitable course of action.

**General or Qualifying Exams**

Before being admitted to candidacy for a degree, each graduate student must pass the department’s general examination/qualifying examination, which consists of three parts: music history, music theory, and the student’s area of concentration. All parts of the general examination must be passed before the student earns more than 18 credit hours toward the degree; coursework taken in excess of this limit will not be counted if the credits are earned before all three parts of the general examination are passed.

When a student does not pass any part of the diagnostic/general/qualifying examination, there are two options:

1. **Exam Option.** The student may repeat the unsuccessful portion of the exam the next time the examination is offered. If a student chooses this option but does not take the next examination, a failure is recorded. Any student who does not pass the diagnostic examination and does not pass the general examination/qualifying examination twice will be dropped from the program.

2. **Course Option.** The student may take courses to remove the deficiency and must submit the required course option form. Courses to clear pre-program deficiencies or in lieu of general or qualifying examination must be taken for grade during the first two semesters of study and passed with a grade of B (not B-) or better. These courses do not count toward graduate degrees. All deficiencies must be cleared by the end of the first year of study. Students who do not remove their deficiencies by the end of the first year of study will be dropped from the graduate program.

Any exceptions to these procedures must receive prior approval by petition to the graduate faculty. The student petitions the graduate faculty by memo, signed and dated, explaining the reason for the deferral request, no less than five weeks before the exam retest date.

**Master’s Degree**

The department offers programs leading to the MA in music with concentrations in ethnomusicology, music education, and musicology, and to the MMus with concentrations in composition and performance (voice, piano, and selected instruments). The MA in music education is available either on-campus or online.

**Admission Requirements**

Applicants for admission to the master’s degree program must have an undergraduate degree with a major in music or a bachelor’s degree and evidence of an equivalent musical background; three confidential letters of recommendation (not more than two years old) on forms provided by the music department; and, for non-native speakers of English, a TOEFL score of 500 (paper) 61 (iBT) minimum for performance or 540 (paper) 76 (iBT) for other concentrations and 600 (paper) 100 (iBT) with scores of 25 in listening and speaking for teaching assistants. Application forms are available at the music department, website, and the Graduate Division or their website. The completed forms should be submitted with two official copies of all transcripts by January 15 for the fall semester, and by August 1 for the spring semester. In the following concentrations, students must meet additional admission requirements:

- a. **Composition—**Three original scores representative of various forms and media.
- b. **Ethnomusicology—**A personal statement of 800 words minimum (3 pages) including the purpose of study. Background in cultural anthropology is desirable and, depending on the thesis research, may be required.
- c. **Music Education—**Minimum of one year of full-time music teaching experience in a public or private school. A 20-30 minute videotape/DVD demonstrating current teaching expertise and a lesson or rehearsal plan.
- d. **Musicology—**Sample of academic writing proficiency (a 10-page term paper in English from an upper division music history course is preferred).
- e. **Performance—**An audition of works representative of various musical styles. An applicant not residing in Hawai‘i must submit an unedited tape recording or CD comparable in scope and length to an in-person audition and, if admitted, will audition before the department admissions faculty before registering for the first semester of residency to ascertain appropriate placement in the curriculum sequence. A recent UH Mānoa graduate may be admitted without a hearing if the BMus senior recital is considered to be of high enough quality by the majority of the department admissions faculty.

An applicant must declare a specific concentration within the MA or MMus; admission, if granted, is for that concentration only. If a student later wishes to change to another concentration, he or she must petition the graduate faculty in music for approval.
More detailed information and links to relevant forms for all degree programs are posted on the department’s website: www.hawaii.edu/uhmmusic.

Some concentrations require language competence:
1. Ethnomusicology—A reading or speaking knowledge of a foreign language relevant to the thesis research (or equivalent competence in linguistics).
2. Musicology—A reading knowledge of French or German.

**Degree Requirements**

Plan A requires a minimum of 30 credit hours, 22 in course work and 8 of thesis. Candidates concentrating in ethnomusicology, music education, musicology, theory, and composition follow this plan. An ethnomusicology thesis is usually based on fieldwork. Composition students must compose an original work in one of the larger forms, plus write a detailed essay on the background and problems involved or a detailed theoretical analysis of the work.

Plan B also requires a minimum of 30 credit hours but does not include a thesis. Candidates in performance and music education follow this plan. Plan B students in music education must fulfill the following requirements:

1. A comprehensive three-hour examination, exhibiting strength in written expression and a grasp of the essentials of the broad field of music education; and
2. A project or paper about some specific aspect of music education whose size and scope will be determined by the student and the faculty member directing the project.

Under Plan A, the student arranges the oral final examination in consultation with the thesis committee, usually during the semester in which all course work has been completed and after the student has completed the thesis document. Copies of the document must be presented to the committee at least two weeks prior to the examination. At the examination, the thesis committee examines the student’s knowledge and understanding of the field of concentration, with emphasis on the content of the thesis.

Candidates concentrating in performance must give a public, hour-long recital. Additionally, in the recital semester the student will meet with the recital committee for a one-hour oral examination to discuss historical and analytical aspects of the works to be performed in the graduate recital.

The master’s student must spend at least two semesters in program residency at UH Mānoa. (Full-time work or the equivalent in credit hours.)

**Doctoral Program**

The department offers programs leading to the PhD in music with concentrations in composition, ethnomusicology, music education, musicology, and performance.

**Admission Requirements**

Applicants for admission to the PhD program must present a master’s degree in music (in the area of emphasis or equivalent), an excellent academic record (two copies of all college transcripts), three confidential letters of recommendation (not more than two years old) on forms provided by the music department, a sample of academic writing proficiency such as recent term papers as specified in certain areas, and, for non-native speakers of English, a TOEFL score of 560 (paper) 83 (iBT) or better and 600 (paper), 100 (iBT) with scores of 25 in listening and speaking for teaching assistants. Application forms are available at the music department, website, Graduate Division, or the Graduate Division website. The completed forms should be submitted with two official copies of all transcripts by January 15 for entrance in the following fall semester and by August 1 for entrance in the following spring semester.

In the following concentrations, students must meet additional admission requirements:

1. Composition—A master’s degree in composition or the equivalent in terms of course work and original composition; a score of one large-scale work; scores of two shorter works; and a recording of at least one of the above.
2. Ethnomusicology—A master’s degree in ethnomusicology or the equivalent in terms of coursework and fieldwork. A major research paper in ethnomusicology as evidence of extensive background in musical traditions other than Western art music.
3. Musicology—A master’s degree in musicology or a minimum of four graduate seminars in musicology, and a 7,500-word research paper in English on a subject in historical musicology.
4. Music Education—A master’s degree in music education is preferred, but an equivalent background is acceptable. A minimum of two years full-time music teaching in a public or private school; three confidential letters of recommendation on the applicant’s teaching ability, at least two of which must be written by the applicant’s job supervisors (principal or other supervisor); and one of the following: (a) a 20-30 minute videotape or DVD demonstrating current teaching expertise, or (b) an in-person teaching demonstration; and a lesson or rehearsal plan relevant to the teaching demonstration.

An applicant must declare a concentration in one of the four areas previously listed. Admission, if granted, is for that concentration only. If a student later wishes to change to another concentration, he or she must petition the graduate faculty in music for approval. Each student will have a principal advisor who must be a member of the music department’s graduate faculty. An application will be denied if it is determined that no principal advisor in the applicant’s area of interest is available on the music department’s graduate faculty.

**Degree Requirements**

This degree requires an emphasis in ethnomusicology (11 credits of specified course work) for students who are not concentrating in ethnomusicology. This emphasis ensures that all PhD graduates will be able to teach introductory courses in world music. Requirements for music PhD students also include MUS 659 Seminar in College Music Teaching, usually followed by or concurrent with supervised college teaching experiences.

The PhD student must spend at least three semesters in program residence (full-time work or the equivalent in credit hours) at UH Mānoa and must complete the degree within seven years.

Other Requirements. Before advancing to candidacy, reading proficiency must be satisfactorily demonstrated as follows:
1. Ethnomusicology—One dissertation research language and one library research language.
2. Music Education—Language appropriate to the areas of research or research statistics.
3. Musicology—Two European languages: German and one other language, preferably French.
4. Composition—None. Presentation of a full (60-75 minute) recital of works composed during the doctoral residency.

**Comprehensive Exam and Advancing to Candidacy.**
This exam measures the student’s readiness to begin significant research in the selected major area of research. It is given only after successful completion of course work, fulfillment of residency requirements, successful completion of all language requirements, and notice from the advisory committee that the student is sufficiently prepared for this examination. This two-part exam consists of a written portion and a two-hour oral portion. A student failing this exam may retake it once, but must do so within one year. Passing this exam enables the student to begin the dissertation process and receive an ABD certificate from UH Mānoa, indicating that all requirements of the doctorate except for the dissertation have been completed. Following the formation of a five-member doctoral committee, the comprehensive exam, and submission and approval of a dissertation proposal by the doctoral committee, the student is advanced to candidacy.

After this occurs, all that remains is fieldwork (for ethnomusicology majors only), research for and writing of the dissertation, and the oral defense of the dissertation.

**Final Oral Examination.** Basically a defense of the dissertation, this exam is conducted by the five-member doctoral committee, consisting of graduate faculty members appointed by the music graduate chair and approved by the Graduate Division dean. The chair of the student’s advisory committee normally serves as the chair of the student’s doctoral committee. At least one member must be from outside the music department, but music department members make up the majority. The committee chair and outside member must be physically present at the exam, which is subject to other regulations described at the Graduate Division website: manoa.hawaii.edu/graduate/content/final-defense.

The student arranges the date of the final oral exam in consultation with the doctoral committee; it usually takes place during the semester the student has completed the dissertation document. Copies of the document must be presented to the committee at least two weeks prior to the examination. At the examinations, the committee scrutinizes and judges the student’s knowledge and understanding of the field of concentration, with emphasis on the content of the dissertation.

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**Peace Studies**

**College of Social Sciences/Spark Matsunaga Institute for Peace and Conflict Resolution**
Saunders Hall 523 and 723
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-6433
MIPCR Fax: (808) 956-9121
Email: uhip@hawaii.edu
Web: www.peaceinstitute.hawaii.edu

**Faculty**
*C. Petersen, JD (Director, Matsunaga Institute for Peace and Conflict Resolution)—international human rights, equality and non-discrimination, women and the law
*B. Barnes, JD, LLM (Chair, Graduate Certificate in Conflict Resolution)—conflict resolution
B. Hallett, PhD—peace studies

**Cooperating Faculty**
*I. Aoude, PhD—ethnic studies
*J. Barkai, JD—law
J. Campos, PhD—political science, terrorism studies
*R. Chadwick, PhD—political science
*D. Chandler, PhD—sociology, conflict resolution
*S. Chandler, PhD—public policy/child welfare
*M. Cofman, PhD—environmental economics, planning
*D. Foley, PhD—deliberative dialogs, conflict resolution
*A. Hubbard, PhD—conflict and relational management
*M. Jones, PhD—physics
*G. Kent, PhD—political science
*K. Lowry, PhD—ADR, coastal management, community planning
*B. Lum, PhD—peace studies, peace education, human development
*L. Minerbi, PhD—urban and regional planning
*R. Robinson, PhD—management
L. Ruby, PhD—art
*W. Sharkey, PhD—conflict and relational management
*C. Stephenson, PhD—political science
*J. Van Dyke, JD—law

**Degree and Certificates Offered:** Certificate in Peace Studies, BA in interdisciplinary studies (peace and conflict studies), Graduate Certificate in Conflict Resolution

**The Academic Program**
The Spark Matsunaga Institute for Peace and Conflict Resolution is a multi-disciplinary academic community of scholars, students, practitioners, and visitors, who, through teaching, research, service, and application, seek to groom future leaders and professionals in applied peacemaking and conflict resolution, empowering them to better address contemporary problems within Hawai’i, the Asia-Pacific region, the U.S., and the world.

The Institute was established to carry out the vision of U.S. Senator Spark M. Matsunaga that “every student enrolled in Hawaii’s public university system will be exposed to peace studies.” The Institute is committed to building on Hawai’i’s cultural heritage and island values: aloha, mutual aid and re-
spect, sense of community, and caring for the land, to promote cross-cultural communication and peacemaking leadership.

Peace and conflict resolution is a dynamic field, one that is increasingly relevant to our graduates’ professional careers and to other fields of academic inquiry. Students from all colleges in UH Mānoa may enroll in Peace and Conflict Education (PACE) courses, either as an intellectual endeavor or to enhance their personal and professional skills. We believe that students who understand the causes of conflict and the methods for resolving conflicts will be better equipped for a wide range of careers, including, but not limited to, positions in education, law, dispute resolution, industrial relations, government, foreign service, security, urban and regional planning, sociology, and social work.

For students who wish to obtain an academic qualification in peace and conflict resolution, the institute offers three programs:

1. The Peace and Conflict Resolution major for undergraduates (a flexible inter-disciplinary program offered in cooperation with the Interdisciplinary Studies BA program).
2. The Certificate in Peace Studies (open to undergraduate students and equivalent to a “minor”).
3. The Graduate Certificate in Conflict Resolution (open to graduate students seeking the certificate only or concurrently with another graduate-level degree program).

Inherently interdisciplinary and international in perspective, these programs encourage critical thinking and further the university’s mission to expand leadership in international affairs and advance stable, peaceful, prosperous, and democratic relations in the region. The institute has also built a reputation for leadership in dispute resolution and facilitation of community dialogues on controversial issues. The requirements for the degree programs are set forth below.

Undergraduate Study

Bachelor’s Degree in Peace and Conflict Resolution

In collaboration with the Interdisciplinary Studies program, the Matsunaga Institute for Peace and Conflict Resolution offers a flexible, self-designed BA in peace and conflict resolution. With the exception of three required courses, students are free to design an academic program that is appropriate for their interests, needs, and goals. Students work closely with faculty advisors from the Matsunaga Institute and Interdisciplinary Studies to develop a coherent, multidisciplinary course of study. This gives students the flexibility to concentrate on a special area of interest or to take a broader approach to peace and conflict studies. Additional information is available at www.peaceinstitute.hawaii.edu and from Interdisciplinary Studies in the Colleges of Arts and Sciences.

Requirements

- PACE 310 Survey Peace and Conflict Studies (3)
- PACE 447 Mediation Skills: UH Basic (3)
- PACE 495 Practicum and Internship (or a faculty approved substitute) (3)

The remaining credit hours, to meet the major’s minimum requirement of 36 credit hours, can be drawn from courses offered by the Matsunaga Institute (designated as PACE courses) as well as courses offered by other departments. Although a list of suggested electives is set forth below, students may also propose other courses, provided that they can achieve a coherent program of study that meets the requirements of the Interdisciplinary Studies Program. An overall GPA of 2.5, with no grade below a C, is required in the major course work.

Certificate in Peace Studies

The Certificate in Peace Studies (15 credit hours), which is equivalent to a minor, equips students with the fundamentals of peace and conflict studies, allowing them to broaden the reach of their major with insights from this multidisciplinary field. The certificate gives students a greater awareness of what can be done to remedy the social injustices of our times and to manage and resolve conflict, skills that are highly valued by employers in a wide range of professional fields.

To receive a Certificate in Peace Studies, students are required to take PACE 310, 447, and 495 (or a faculty approved substitute) and six additional credit hours selected in consultation with the student’s certificate advisor. A GPA of 2.5, with no grade below a C, is required in certificate courses.

Suggested optional courses for the major in Peace and Conflict Resolution and for the Certificate in Peace Studies.

- PACE 247 Survey of Conflict Management
- PACE 315 Personal Peace: Stories of Hope
- PACE 340 Negotiation
- PACE 345/ANTH 345 Aggression, War, and Peace
- PACE 373/POLS 396 Nonviolent Political Alternatives
- PACE 399 Directed Reading
- PACE 410 History of Peace Movements
- PACE 412 Gandhi, King, and Nonviolence
- PACE 413 Terrorism
- PACE 420 Introduction to Human Rights
- PACE 477 Culture and Conflict Resolution
- PACE 478 International Law and Disputes
- PACE 485 Topics in Peace and Conflict Resolution*
- PACE 489 Hiroshima and Peace (summer only)
- ANTH 423 Social and Cultural Change
- BIOL 310 Environmental Issues
- COM 340 Intercultural Communication
- COMG 455 Conflict Management
- ECON 414 Growth and Crisis in the Global Economy
- FAMR 350 Leadership and Group Process
- GEOG 436 Geography of Peace and War
- POLS 201 Problems of War and Peace
- POLS 319 International Organization
- POLS 375 Constitutional Law I: Institutional Power
- POLS 394 Democracy in Organizations
- SOC 433 Analysis in Law and Social Change
- SOC 446/WS 446 Gender Violence Over the Lifecycle
- WS 304 Women, War, and the Military

*There may be more than one section of this course offered, each focusing on different specialized topics in the field. Examples include Indigenous Peacemaking, Ho'oponopono, and International Criminal Law and The Law of War. The course is repeatable one time.
Graduate Study

Certificate in Conflict Resolution

The Certificate in Conflict Resolution allows students pursuing a master’s or doctoral degree in another area to become acquainted with conflict resolution theory, practice, and activities. It is also available to students seeking the certificate only and considers unclassified students, as well as degree students, for admission. Students enrolled in public administration, education, law, urban and regional planning, political science, sociology, anthropology, geography, health, social work, environmental science, zoology, and psychology are part of the program, along with professionals in the community. Students are encouraged to use the certificate program to increase their competence in conflict resolution as it relates to their major area of study. The Certificate in Conflict Resolution introduces students to the fundamentals of conflict resolution; mediation systems; dynamics for group conflict; skills for organizing and leading group deliberations and dialogues; and culturally appropriate dispute resolution.

Students are required to complete at least fifteen (15) credits from the approved course list, including a three-credit practicum (PACE 695), which may be replaced by a course with the approval of the student’s advisor. Each student will be assigned a temporary advisor upon acceptance into the program, with the option of making an alternate choice during the first semester of coursework. Toward the end of the course of study students will complete a “capstone” paper under the supervision of their advisor, which is intended to integrate their academic and practical experiences in the certificate. Each student will also successfully complete a “skills assessment” before the certificate is awarded. The graduate certificate in conflict resolution is available to students seeking the certificate only or concurrently with a JD or an MA, MPA, MSc, PhD, or professional degree. International students must have a 600 (paper), 250 (computer) and 100 (internet) TOEFL score to be admitted. The approved list of certificate courses is divided into “core” and “elective” courses. Students are required to complete at least two courses from the list of core courses and two from the list of electives. Courses are multi-disciplinary in nature. The areas include negotiation, mediation, facilitation, culture and conflict resolution, international disputing/international law, ADR systems design, conflict resolution for educators, political science, and communicology. Up to two classes at the 400-level may be counted toward the certificate, subject to advisor approval. See the website at www.peaceinstitute.hawaii.edu or contact the program office for a complete list of courses.

The capstone paper will reflect knowledge of conflict theory and analysis and the application of resolution processes. Two faculty with expertise in the subject area will evaluate whether the paper satisfactorily fulfills the certificate requirements. A practicum, PACE 695, is offered with a requirement of 100 hours. The precise form is to be determined in consultation with the advisor. The practicum may be replaced by a three credit hour graduate course with the approval of the advisor. Specific information about the required and elective courses, including the graduate certificate brochure, can be found at www.peaceinstitute.hawaii.edu.

Upon completion of the core courses, students are expected to demonstrate their skills in facilitation, mediation, or process design. The demonstration may be either an actual mediation or a simulated mediation or other problem-solving process organized by faculty. Skill outcome areas will be observed and assessed, including: ability to develop and maintain a collaborative atmosphere and approach; ability to use communication skills such as appropriate questions, summarization, active listening, and re-framing, where appropriate; ability to clarify, analyze, frame, track, and link appropriate issues; ability to identify and use objective criteria in evaluating dispute resolution proposals; ability to use interest-based negotiation principles effectively; and ability to develop and test dispute resolution options using interests and criteria.

Successful completion of the program leads to a Graduate Certificate in Conflict Resolution. Consideration for admission to the certificate program requires filing of an application form available from the department and the Graduate Division, and a supplemental program application that can be found online at www.peaceinstitute.hawaii.edu.

Faculty

* K. Kipnis, PhD (Chair)—philosophy of law, social and political philosophy, ethics
* T. Albertini, DPhil—Renaissance and early modern philosophy, Islamic philosophy, feminist issues in philosophy
* R. T. Ames, PhD—Daoist philosophy, Confucian philosophy, American philosophy, philosophy of culture, comparative philosophy
* R. Bontekoe, PhD—hermeneutics, epistemology, philosophy of law
* A. Chakrabarti, DPhil—Indian philosophy, philosophy of language, philosophy of mind
* C. Y. Cheng, PhD—philosophy of language and logic, American philosophy, classical Chinese philosophy, Neo-Confucian philosophy
* V. Dalmiya, PhD—epistemology, feminist philosophy
* M. Ishida, PhD—classical American philosophy, Japanese philosophy, process philosophy, history and philosophy of mathematical logic
* S. Odin, PhD—specialist, director of philosophy in the schools; logic, comparative philosophy, philosophy for children
* R. Raghu, PhD—Indian philosophy, comparative philosophy, American philosophy
* J. Tanke, PhD—continental philosophy, aesthetics, historical ontology, social and political philosophy

Cooperating Graduate Faculty

R. A. Amundson, PhD—philosophy of science
P. T. Manicas, PhD—political, social philosophy

* Graduate Faculty
Degrees Offered: Undergraduate Certificate in Islamic Studies, BA (including minor) in philosophy, MA in philosophy, PhD in philosophy

The Academic Program

Philosophy (PHIL) is an open inquiry that involves the disciplined examination of our most comprehensive goals, standards, and criteria. For example: how should we conduct ourselves in our relations with one another? (ethics); what standards should we use to assess our institutions? (social and political theory); how may we achieve knowledge and understanding of the world around us? (epistemology, philosophy of science); what are the most general structures of thought and reality? (philosophy of logic and language, metaphysics); and what place does art have, or what place should it have, in human life? (aesthetics). In pursuing these questions, philosophy is often led to confront issues about the ultimate nature of reality and value or to consider possible limitations on our ability to answer or even to ask such questions. Philosophy proceeds with its task in part through contributing to ongoing discussions and debates within disciplines and traditions and also by cross-disciplinary and cross-cultural comparisons.

Students majoring in philosophy work to develop for themselves a comprehensive view of the aspirations and achievements of human culture and in the process are encouraged to acquire the skills of careful reading and interpretation of texts, of writing that conveys clearly their understanding of some issue, and of responding critically to ideas that other people advance. The Department of Philosophy’s faculty has expertise in an unusually diverse range of philosophic traditions. The faculty includes specialists in Chinese, Japanese, Indian, Buddhist, and Islamic thought, as well as in many of the important Western traditions. The department as a whole has long been recognized internationally for its comparative work between philosophic traditions.

Undergraduate Study

Bachelor’s Degree

Requirements

Students must complete 30 credit hours of philosophy courses, including required courses:
- PHIL 110 or 111
- PHIL 449
- Two courses from PHIL 211, 212, 213, or 414 (Alpha)
- One course from PHIL 300 to 320
- One course from PHIL 330 to 380, PHIL 406
- Four elective courses 200-level or above

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Minor

Requirements

Students must complete 15 credit hours of philosophy above the 100-level. A minor will have any one of the following themes: Asian philosophy; ethics and law; science and society; humanities and the arts; and history of philosophy.

For details of which courses fall under these themes, students should consult the department undergraduate advisor.

Undergraduate Certificate in Islamic Studies

The purpose of this certificate is to increase understanding of Islam as a world religion through critical analysis of primary and secondary materials, to foster knowledge about the complexity among Islamic societies and their diverse cultural expressions, and to explore the role of Islam and Muslims in present and past world affairs.

This certificate is housed within the College of Arts and Humanities. The participating departments are Art and Art History, History, Philosophy, and Religion. Minimum prerequisites for acceptance into the program for undergraduates are sophomore or higher standing with a minimum GPA of 2.5 and the completion of at least one introductory course within one of the four participating departments with a grade of B or better. For non-UH Mānoa students, the prerequisite is an AA or BA degree (or equivalent) that included some humanities component or relevant work experience. Non-UH Mānoa students who do not wish to enroll in a degree program may register for the courses through Outreach College.

Requirements

- 15 credit hours are required for completion of the certificate.
- HIST 354, PHIL 330, and REL 209. It is recommended that REL 209 be taken first.
- Two electives selected from: ART 491B, 492B, 493, HIST 301, 302, 355, 432, and REL 352. (One course in Arabic language may be used as one of the electives.)
- Students are required to undertake a final research project in association with an elective class. Advanced undergraduates with GPA of 3.5 or above may, with instructor consent, use credit from the following graduate classes: ART/ASAN 792, HIST 662, or PHIL 730.

For more information, contact the undergraduate chair.

Graduate Study

The department offers graduate training leading to the MA and PhD degrees. Students with BA degrees may apply to the MA program. Students are accepted directly into the PhD program only if they have already received the MA degree or the equivalent from an accredited institution and have met any other departmental requirements.

Specific requirements for all graduate degrees are detailed in the department’s “Graduate Student Handbook” at www.hawaii.edu/phil/images/stories/PDFs/graduate-student-handbook-2008.pdf.

Although the Western philosophical tradition remains the fundamental frame of reference for the department, the opportunity provided for specialization in the area of Asian philosophy is unique in that the UH Mānoa is the only institution of higher learning in the U.S. with a regular program leading to the PhD degree with areas of specialization in Islamic, Indian, Buddhist, Chinese, Japanese, and comparative philosophy. Whatever their field of specialization, graduate students intending to complete a PhD in philosophy at UH Mānoa must acquire a thorough knowledge of the history and problems of Western philosophy. On the basis of this foundation, students
may further specialize in one of three areas of study: Western philosophy, Asian philosophy, or comparative philosophy. The area of comparative philosophy is the most demanding; at the PhD level its requirements include proficiency in both the Western and Asian fields. The candidate is expected to gain a mastery of some specific topic that can be approached through the resources of two or more philosophic traditions.

All graduate students shall develop their course of study in consultation with the chair of the graduate program. The MA and PhD in Asian philosophy 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, Utah, Washington, and Wyoming are eligible, on admission, to enroll at Hawai‘i-resident tuition rates.

**Master's Degree**

The MA program can be completed either entirely through course work or through a combination of course work and thesis preparation.

**Admission Requirements**

Students seeking admission must have a BA degree, including the equivalent of 30 credit hours in philosophy. Students who lack this preparation must make up deficiencies either before or during graduate study. In the latter case, students will be admitted only conditionally, pending removal of the deficiencies. Deficiencies may also be designated in cases where a student’s background does not include a sufficient number and range of courses in Western philosophy. The GRE General Test is required of all program applicants to whom it is accessible.

**Degree Requirements**

To be eligible for conferral of the MA degree, a student must maintain a minimum GPA of 3.3 while completing at least 30 credit hours of course work, at least 18 of which must be in courses numbered 600 and above. In addition, students submit three papers for a culminating exam, which includes an oral component. Also required for the MA degree are four semesters (or the demonstrated equivalent) of at least one philosophically significant language other than English: typically classical Greek, Latin, French, German, Arabic, classical Chinese, Japanese, Sanskrit or Pali. Language proficiency examinations will be conducted through the Graduate Division and the department of UH Mānoa responsible for teaching that language.

**Doctoral Degree**

The doctoral program consists of two stages. The first stage is that leading to admission to candidacy; the second, to the awarding of the degree. Normally the first involves at least two years of course work beyond the MA in preparation for departmental and language examinations. The second stage involves writing a dissertation and passing an oral examination in its defense. Students must attain certification for PhD candidacy—that is, fulfill all the requirements for the PhD except for the writing and oral defense of the dissertation—within four years of admission to the PhD program.

**Admission Requirements**

Students seeking admission must hold an MA degree or the equivalent in philosophy and have earned a minimum GPA of 3.3 in courses taken for the MA. Students may be required to make up deficiencies upon entry into the PhD program (see requirements for MA degree above). The GRE General Test is required of all program applicants to whom it is accessible.

**Degree Requirements**

To be eligible for conferral of the doctor of philosophy degree, a student must maintain a minimum GPA of 3.3 while completing at least 30 credit hours of course work beyond the requirements for the MA. A minimum of 18 of these credit hours must be taken at or above the 600 level. Students are required to demonstrate competence in each of three general areas: 1) history of philosophy; 2) metaphysics, epistemology, logic, and philosophy of science; and 3) ethics, aesthetics, social and political philosophy, and philosophy of law. Course listings made available each semester will indicate the general area or areas within which each course fits. Students are required to pass two examinations in an area related to the subject matter of their prospective dissertation, to complete an original dissertation, and to pass a final oral dissertation defense. In addition, students shall demonstrate proficiency in at least one (and where deemed necessary two) philosophically significant language(s) other than English: typically classical Greek, Latin, French, German, Arabic, classical Chinese, Japanese, Sanskrit or Pali. Language proficiency examinations will be conducted through the Graduate Division and the department of UH Mānoa responsible for teaching that language.

**Physics**

College of Natural Sciences
Watanabe 416
2505 Correa Road
Honolulu, HI 96822
Tel: (808) 956-7087
Fax: (808) 956-7107
Email: physics@hawaii.edu
Web: www.phys.hawaii.edu/

**Faculty**

*P. K. Lam, PhD (Chair)—condensed matter, theory*
*T. Browder, PhD—elementary particles, experiment*
*W. L. Ditto, PhD—applied chaos theory*
*L. Elias, PhD—free electron laser physics*
*J. Gaines, PhD—condensed matter, experiment*
*P. Gorham, PhD—elementary particles, experiment*
*F. Harris, PhD—elementary particles, experiment*
*M. D. Jones, PhD—elementary particles, experiment*
*J. Kumar, PhD—elementary particles, theory*
*J. G. Learned, PhD—particle astrophysics*
*J. M. J. Madey, PhD—free electron laser physics*
*S. Matsuno, PhD—particle astrophysics*
*S. Pakvasa, PhD—elementary particles, theory*
*M. W. Peters, PhD—elementary particles, experiment*
*K. Sattler, PhD—condensed matter, experiment*
*E. B. Szarmes, PhD—free electron laser physics*
*X. R. Tata, PhD—elementary particles, theory*
*S. Vahsen, PhD—elementary particles, experiment*
*G. Varner, PhD—elementary particles, experiment*
*C. Vause III, PhD—condensed matter, theory*

* Graduate Faculty
Affiliate Graduate Faculty
A. Barger, PhD—cosmology, observational
T. Dombek, PhD—elementary particles, experiment
S. Dye, PhD—particle astrophysics
A. McDonald, PhD—particle astrophysics
R. Morse, PhD—particle astrophysics
S. Ohnuma, PhD—elementary particles, experiment
W. Simmons, PhD—elementary particles, theory

Degrees Offered: BA (including minor) in physics, BS in physics, MS in physics, PhD in physics

The Academic Program
Physic (PHYS) is the study of matter and energy and how they interact at the most basic levels. Areas include mechanics, optics and lasers, thermodynamics, electricity, magnetism, quantum theory, atomic and nuclear phenomena, condensed matter, and elementary particles. Physics is widely regarded as the most basic of all the sciences. UH Mānoa offers both the Bachelor of Arts and Bachelor of Science degrees in physics. Faculty members who teach physics courses are at the forefront of research in physics both in experiment and in theory. In the field of elementary particles, faculty members currently perform experiments in Hawai‘i, in Japan, and in Antarctica to study neutrinos and high-energy gamma rays coming from the stars. Others are involved in experiments at the BEPC II accelerator in China and at the KEKB accelerator in Japan, studying particle production and decay and the violation of particle/anti-particle symmetry. In condensed-matter physics, they investigate nano-materials and use a scanning tunneling microscope to take pictures of individual atoms. A free electron laser is operating in the physics building. This device allows faculty to carry out forefront research in fundamental and applied physics. Often, undergraduate physics majors work on these projects along with graduate students and the faculty.

Advising
Academic advising is mandatory for all undergraduate physics majors. Contact the department office for assignment to an advisor. Note that in order to complete the program in 4 years, a physics student must begin the study of calculus in either the first or the second semester of the freshman year.

Undergraduate Study

BA Degree

Requirements
Students must complete 40 credit hours in PHYS courses, including:
- PHYS 170/170L, 272/272L, 274/274L, 310, 350, 400, 430, 450, 480, and 480L.
- One course from PHYS 440, 460, 481, or 490.
- Two courses from PHYS 305, 475, or 481L.
- CHEM 161/161L and 162/162L or 171/171L or 181A/181L.
- MATH 241, 242, 243, 244, and 311 (MATH 251A, 252A, 253A, may be substituted for MATH 241, 242, 243, 244.
- MATH 251, 252, 253A, may be substituted for MATH 241, 242, 243, 244.
- MATH 215, 216, may be substituted for MATH 241, 242, with consent from physics advisor.)

- Grade of C (not C-) or better in above courses

Upon approval of a physics department advisor and chair, the PHYS 170 through 272L requirements may be satisfied by PHYS 151 through 152L, and requirements for PHYS 305 (or 475 or 481L), 440 (or 460 or 481 or 490), 450, 480, and 480L, may be modified to accommodate a special emphasis or interdisciplinary program that is appropriate for the major in physics.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_phys.asp#PHYS_SCHED.

BS Degree

Requirements
Students must complete 46 credit hours in physics courses, including:
- One course from PHYS 440, 460, or 490.
- Two courses from PHYS 305, 475, or 481L.
- CHEM 161/161L and 162/162L or 171/171L or 181A/181L.
- MATH 241, 242, 243, 244, and 311 (MATH 251A, 252A, 253A, may be substituted for MATH 241, 242, 243, 244.
- MATH 215, 216, may be substituted for MATH 241, 242, with consent from physics advisor.)

- Grade of C (not C-) or better in above courses

Upon approval of a physics department advisor and chair, the PHYS 170 through 272L requirements may be satisfied by PHYS 151 through 152L, and requirements for PHYS 305 (or 475 or 481L), 440 (or 460 or 481 or 490), 450, 480, and 480L, may be modified to accommodate a special emphasis or interdisciplinary program that is appropriate for the major in physics.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_phys.asp#PHYS_SCHED.

Minor

Requirements
- PHYS 151/151L and 152/152L or PHYS 170/170L and 272/272L.
- PHYS 274 (lab not necessary).
- 15 additional upper division credit hours, including PHYS 310, 350, and 480.
- Grade of C (not C-) or better in the above courses

Upon recommendation of a physics department advisor and chair, requirements for PHYS 310, 350, and 480 may be modified if an equivalent course is taken in another department.

Graduate Study

This program offers opportunities for study and research leading to the MS and PhD degrees in physics. The staff and
facilities are especially aimed toward experimental and theoretical work in elementary particle physics, nanophysics and free electron laser physics and applications.

Intended candidates for the MS or PhD in physics must present a minimum of 35 undergraduate credit hours in physics, including atomic and nuclear physics, electromagnetism, mechanics, quantum mechanics, and thermodynamics. Courses in general chemistry and differential equations are also required. Official scores of the GRE General Test and the subject test in physics must be submitted prior to admission.

At least one year of experience as a teaching assistant is required of all MS or PhD candidates. All graduate students are required to attend the weekly departmental seminar.

**Master's Degree**

Students wishing to terminate their formal education with the MS degree generally select Plan A (thesis) so as to gain some research experience, as well as formal class work. These students are prepared to enter teaching positions at the community college level or industrial and civil service positions at the junior scientist and engineer level.

Students planning advanced graduate work generally complete the Plan B (non-thesis) or Plan C (examination) requirements for the MS degree. At this point most of their formal class work has been completed and further work consists mainly of seminars, directed research, and the dissertation.

**Requirements**

For the MS Plan A, students must complete 30 credit hours of course work, including (a) a minimum of 18 credit hours of physics courses numbered 600 to 798, including PHYS 610, 650, 670, and 690; (b) minimum of 6 credit hours of thesis; and (c) approved electives, which may be selected from PHYS 699 for a maximum of 2 credit hours and courses in mathematics, chemistry, meteorology, engineering, and philosophy. Other courses can be included on a case-by-case basis at the discretion of the department chair. A final oral examination covers the thesis and related areas and completes the Plan A requirements.

For the MS Plan B, students must complete 30 credit hours of course work, including (a) a minimum of 18 credit hours of physics courses numbered 600 to 798, including PHYS 610, 650, 670, and 690; and (b) approved electives, as in Plan A. A written qualifying examination completes the Plan B requirements.

For the MS Plan C, there is no credit hour requirement but a minimum residency requirement must be satisfied. MS Plan C is intended for students who had completed equivalent course requirements at another institution. Admission to Plan C requires the approval of the physics graduate program advisory committee. A written qualifying examination and a final oral examination complete the requirements for Plan C.

**Doctoral Degree**

The PhD degree is essentially a research degree. Students complete an original and significant piece of research and are at the forefront of one area of physics. Students are expected to enter the academic world in a teaching and research capacity or industrial and government research laboratories as senior scientists.

**Requirements**

To be admitted to the PhD program, students must perform satisfactorily on a written qualifying examination followed by an advancement to candidacy oral examination. A student is allowed two attempts to pass the written qualifying examination within the student’s first six semesters as a regular classified graduate student. The student’s first attempt must be within the student’s first four semesters as a regular classified graduate student. Students who fail twice cannot continue in the graduate program.

In addition to the courses required for the MS degree, students are responsible for the material covered in PHYS 651 and 671. A scholarly dissertation must be written, and a final oral examination in defense of the dissertation completes the requirements for the PhD.

**Political Science**

College of Social Sciences
Saunders Hall 640
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8357
Fax: (808) 956-6877
Email: polisci@hawaii.edu
Web: www.politicalscience.hawaii.edu

**Faculty**

*D. Halbert, PhD (Chair)—public policy, political futures, law and politics
*S. Krishna, PhD (Graduate Chair)—comparative politics, international political economy, South Asia
*N. Silva, PhD (Undergraduate Chair)—Hawaiian politics, indigenous politics
*H. Aikau, PhD—contemporary native Hawaiian identity and politics, feminist theory, and critical race theory
*R. Chadwick, PhD—international relations, global modeling, methodology
*J. A. Dator, PhD—political futures, media, Asian politics
*K. Ferguson, PhD—feminist theory, political theory, organizational theory
*P. Flowers, PhD—Japanese politics, international law, international relations
*J. Goldberg-Hiller, PhD—law and politics, public policy, social theory
*J. N. Goodyear-Ka’opua, PhD—Hawaiian politics, Indigenous politics, politics of education and culture
J. Grove, PhD—critical war studies, complexity theory and system theory
*M. Henningens, PhD—political theory, European politics, genocide/Holocaust
*K. Heyer, PhD—disability studies, law and politics, comparative law
*E. Kimura, PhD—comparative politics, political change, Southeast Asia
C. Moore, PhD—American politics, public policy, politics of bureaucracy, institutional change
*L. Nitz, PhD—political economy, public policy, methodology
*M. J. Shapiro, PhD—political theory, media, politics of culture

* Graduate Faculty
Undergraduate Study

Bachelor's Degree

Requirements

Students must complete 27 credit hours, including:

- a prerequisite introductory course at the 100 or 200 level
- 9 credit hours from courses distributed as follows: POLS 335; either POLS 305 or 315; and either POLS 375, 376 or 385
- POLS 390 (Political Inquiry and Analysis)
- 9 credit hours from other 300 level courses, including 3x5 courses
- 3-6 credit hours from 400 level courses

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaap/programsheets/.

Minor

Requirements

Students must complete 18 total credit hours. 15 credit hours from the 300 level or above, including one course from POLS 305, 315, 335, 375 or 385.

Students should choose one of the 100 or 200 level political science courses as part of their General Education Core in social sciences, since a 100 or 200 level course is prerequisite for 300 level courses.

Undergraduate Certificate in Law and Society

Requirements

Students must complete 18 total credit hours. 15 credit hours from the 300 level or above, including one course from POLS 305, 315, 335, 375 or 385.

Students should choose one of the 100 or 200 level political science courses as part of their General Education Core in social sciences, since a 100 or 200 level course is prerequisite for 300 level courses.

Interdisciplinary Certificate in Social Science and Health

The purpose of this certificate is to supplement the disciplinary major of students who wish to pursue careers in the field of health and health care by enhancing the breadth, quality, and coherence of their education through taking health-related courses in a variety of different academic disciplines. A more complete description and the requirements are described under the Department of Sociology.

Graduate Study

The department has three different graduate degree programs: master's degree Plan A, for which a master's thesis is required; master's degree Plan B, for which a culminating experience is required; and the doctor of philosophy (PhD) program. The department offers specializations in alternative futures, Asian and Pacific politics, comparative politics, interna-
tional relations, political theory, indigenous politics, and public policy.

Further information regarding the requirements for all three programs is available at www.politicalscience.hawaii.edu.

The application deadline is February 1 for admission in the fall semester. No spring semester admissions are taken.

**Master’s Degree**

The department offers MA Plan A (thesis) and Plan B (culminating experience) degrees that can be tailored to a student’s interests and needs. The MA program invites applicants who are prepared to think critically and constructively about political phenomena. All MA students are required to take three of the following courses regardless of program (Plan A or Plan B): POLS 610, 620, 630, 640, 650, 660, 670, and 680.

**Doctoral Degree**

The department’s PhD program encourages students to pursue specialized interests as well as to broaden their understanding of political phenomena. The department looks for students who are prepared to construct a successful course of study based on their individual interests, in conjunction with appropriate advising and course work. We encourage applicants who approach political questions in a critical and creative manner and who combine work from different specializations and disciplines to pursue their own particular projects.

**Honors and Awards**

**Undergraduate**

- Thomas Hamilton Memorial Scholarship—$600 for a student with outstanding scholarship and all-around performance who has completed at least two courses in political theory.

- Carl Knobloch Prize Fund—$500 for a student with an excellent academic record who also has an outstanding record of community and/or UH service.

**Graduate**

- Norman Meller Award—$1,500 for fall semester to a graduate student with an outstanding academic record.

- Harry J. Friedman Memorial Scholarship—$700 for outstanding work in comparative politics.

- Jorge Fernandes Memorial Fellowship and Award—for spring semester to aid an outstanding graduate student to support the completion of his/her dissertation.

- Glendon Schubert and James Neal Schubert Political Science Endowed Scholarship—for spring to a graduate student who specializes in public law, law and society.

**Psychology**

**College of Social Sciences**

Sakamaki C-400
2530 Dole Street
Honolulu, HI 96822
Tel: (808) 956-8414
Fax: (808) 956-4700
Email: psych@hawaii.edu
Web: www.psychology.hawaii.edu

**Faculty**

* A. E. Maynard, PhD (Chair)—developmental, cultural, siblings and socialization, cognitive change

* C. K. Baker, PhD—intervention development and evaluation, prevention of domestic violence and homelessness

* R. J. Blanchard, PhD—behavioral neuroscience, aggression, emotion, fear and anxiety

* P. A. Couvillon, PhD—behavioral neuroscience, animal learning, cognition

* L. A. A. Doumas, PhD—cognitive, analogy, computational models of cognition, mental representation, the development of structured thought

* A. Dunn, PhD—physiological psychology, psychopharmacology

* F. J. Floyd, PhD—clinical, family and couple relationships, developmental disabilities, sexual minority growth

* B. N. Frazier, PhD—children’s cognitive development

* E. H. Hartfield, PhD—social, emotions, social-psychophysiology

* K. Hayashi, PhD—quantitative psychology and psychometrics

* E. M. Heiby, PhD—clinical depression, compliance assessment, integrated behavioral therapy

* L. A. James, PhD—social-personality, library skills, psycholinguistics

* V. A. Kameoka, PhD—culture and mental health, quantitative methods and measurements, research

* J. Latner, PhD—understanding and treatment of obesity and eating disorders

* C. W. Mueller, PhD—child clinical, social, HIV, and health

* B. J. Nakamura, PhD—clinical, youth anxiety, dissemination of evidence-based practices

* K. Pauker, PhD—social intergroup relations, stereotyping, social perception

* S. C. Sinnett, PhD—cognitive, mechanisms of attention and perception

* C. H. Sophian, PhD—developmental, cognitive development in children

* L. K. Takahashi, PhD—behavioral neuroscience

* K. M. Vitousek, PhD—clinical, cognitive behavioral approaches, eating disorders, caloric restriction for longevity

* Y. Xu, PhD—children’s social development and culture

**Cooperating Graduate Faculty**

* D. Bhawuk, PhD—culture and community

* R. W. Brislin, PhD—social-personality

* P. W. Dowrick, PhD—video research

* E. S. Hishinuma—health, cross-cultural

* P. E. Nachtigall, PhD—marine mammal behavior

* K. A. Tokuno, PhD—developmental, teaching, learning, and cognition

* L. A. Yamauchi, PhD—educational psychology

* Graduate Faculty
Affiliate Graduate Faculty
H. S. Bracha, MD—stress, neuropsychiatry
B. F. Chorpita, PhD—clinical childhood anxiety disorders
E. Kubany, PhD—clinical
D. Landis, PhD—psychology
A. Pack, PhD—marine mammal behavior
J. E. Schiffman, PhD—child clinical
C. W. Stephan, PhD—social psychology
W. G. Stephan, PhD—social psychology
W. T. Tsushima, PhD—neuropsychology

Degrees and Certificate Offered: BA in psychology, MA in psychology, PhD in psychology, Certificate in Clinical Psychology (Respecialization)

The Academic Program
Psychology (PSY) can be defined as the science of mind and behavior. Some psychology majors are preparing to enter graduate school, where they will be trained to become professional psychologists and scholars. Others use psychology as a pre-professional major for other fields, such as law or medicine. The majority of psychology majors, however, are using psychology as a general interdisciplinary arts major. Psychology is qualified as a discipline for this purpose. An understanding of the spectrum of psychological knowledge, methods, and concepts facilitates and enhances productivity in virtually every area of human endeavor. This understanding also promotes interpersonal skills and sensitivities, as well as critical thinking skills. Collectively, these understandings foster a respect for others, which is a core element of the curriculum of the psychology department.

UH Mânoa is fortunate in having a psychology department composed of an unusually large number of internationally recognized figures in the field. Not only do students get to learn from these scholars in the classroom, but many receive direct training in cutting-edge research and the application of psychological knowledge. Areas of concentration include behavioral neuroscience; clinical studies (APA accredited); community and cultural psychology; developmental psychology; experimental psychopathology; social-personality; and cognition.

Undergraduate Study

Bachelor’s Degree

Pre-major Degree Requirements
Students must complete one course in methodology (PSY 212) and one course in statistics (PSY 225 or SOCS 225) with a minimum grade of C (not C-) before declaration of major.

Degree Requirements
In addition to completion of PSY 212 and PSY 225 or SOCS 225, students must complete 30 credit hours, including:

- 15 credits at the upper division level (300 level and above)
- One course from three of these four sets:
  - Experimental (PSY X2X courses), e.g., PSY 220, 322, 324
  - Psychobiology (PSY X3X courses), e.g., PSY 230, 331, 333
  - Developmental (PSY X4X courses), e.g., PSY 240, 341, 342
  - Social or Personality (PSY X5X or PSY X6X courses), e.g., PSY 250, 260, 352
- 3 credit hours in the advanced seminar series (PSY 4X9, many 4X9 courses are designated as Writing Intensive), excluding PSY 499

A minimum GPA of 2.0 in psychology must be maintained for graduation. PSY 100 is prerequisite to all other courses except PSY 170 and may be counted toward the major and the diversification social sciences (DS) core requirement. No more than a combined total of 15 credits of practicum (PSY 407), teaching (PSY 408), and directed research (PSY 499) may be counted for the major; no more than 9 credit hours in PSY 499 may be counted. Only 3 credit hours in PSY 499 can be used to fulfill the requirement of 15 credit hours at the upper division level. Nevertheless, students intending to do graduate work are encouraged to enroll in PSY 499 and in PSY 408 or 478.

New majors should seek assistance from the Undergraduate Advising Office in Sakamaki D409 (psychadv@hawaii.edu) or consult with Lorey K. Takahashi, Chair of Undergraduate Studies (LKT@hawaii.edu), as soon as possible for advising. Transfer students must earn at least 15 psychology credit hours at the UH Mânoa campus. Additional information can be found at www.psychology.hawaii.edu.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Graduate Study

The graduate program in psychology is designed to provide students with a strong background in theory, research methodology, and psychological issues. Currently, there are 7 concentrations in which students can receive specialized training: behavioral neuroscience; clinical studies; community and cultural psychology; developmental psychology; experimental psychopathology; social-personality; and cognition. Specific details concerning each of the concentrations, their requirements, and faculty research interests may be obtained in one of four ways: (a) by writing to the Department of Psychology, University of Hawai‘i, 2530 Dole Street, Honolulu, HI 96822; (b) by faxing your request to (808) 956-4700; (c) by sending an email communication to the Chair of Graduate Studies (gradpsy@hawaii.edu); or (d) by accessing the department’s website at www.psychology.hawaii.edu.

Applications are considered only for the fall semester. Applicants should normally possess a bachelor’s degree, have a minimum of 24 credit hours of undergraduate work in psychology (including courses in basic psychology such as research methodology, statistics, and learning, abnormal, social, developmental, personality, cognition, and physiological psychology), a cumulative grade point average of at least 3.0, strong letters of recommendation from professors, competitive general GRE scores (past applicants admitted as graduate students in the department tend to score at or above the 600 level on the various sub-domains of the GRE), and preferably one to two years of research experience.

One can apply online at apply.hawaii.edu/ or obtain materials relevant to the application process at www.manoa.hawaii.edu/graduate/. Completed applications must be received by the Graduate Division no later than January 1 each year, with the exception of GRE scores (which can arrive during the month of January).
**Master’s Degree**

The master’s degree program includes a thesis and at least 30 credit hours of courses specified by the department and specific area of concentration. Detailed descriptions of specific requirements for each area of concentration are contained in the department webpage. The department does not offer a terminal master’s degree program in psychology. Only students interested in pursuing a PhD degree are considered for admission. Students with a BA degree are admitted to the master’s program and, upon successful completion, petition for entry into the doctoral program.

**Doctoral Degree**

Students must complete their master’s degree (from UH Mānoa or another accredited institution of higher learning) prior to entering the doctoral program in psychology at UH Mānoa. Specific course work and other relevant departmental and concentration specific classes are required for the doctoral degree. Students must pass comprehensive examinations before proceeding to the dissertation.

**Certificate Program in Clinical Psychology (Respecialization)**

The Clinical Studies Respecialization Program provides clinical training for individuals holding a PhD in a basic area of psychology from a regionally accredited university (or foreign equivalent). Individuals who are already licensed in psychology or who hold an applied degree (e.g., EdD, PsyD) are not appropriate for this program. Upon satisfactory completion of core clinical courses, practica, and internship, the Respecialization student receives a certificate from the Graduate Division and is competitive for clinical research and teaching positions as well as eligible to sit for licensure in most states. The Clinical Studies Program is APA-approved and follows a scientist-practitioner, broadly-behavioral, dual specialty approach to training in which it is encouraged of all graduate and respecialization students to integrate the literatures of a basic area of psychology with related clinical phenomena.

For further details of this certificate, please see www.psychology.hawaii.edu/pages/graduate_programs/respec.html.

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**Public Administration**

College of Social Sciences
Saunders Hall 631
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-8260/(808) 956-3687
Fax: (808) 956-9571
Web: www.puba.hawaii.edu

**Faculty**

- R. Pratt, PhD (Director)—political science
- J. Ady, PhD—communication studies
- S. Chandler, PhD—social work
- T. Choi, PhD—public management
- C. Grandy, PhD—economics
- M. Johansen, PhD—public management
- D. Nixon, PhD—political science

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**Cooperating Graduate Faculty**

T. Brislin, PhD—Academy for Creative Media
C. Moore, PhD—Department of Political Science
A. Singh, PhD—construction management

**Adjunct Faculty**

J. Guben, JD
P. Martin, JD
R. Alm, JD

**Degree and Certificate Offered**: MPA, Graduate Certificate in Public Administration

**The Academic Program**

The Public Administration Program (PUBA) builds leadership in public service in Hawai‘i and the Asia-Pacific region. Located in the College of Social Sciences, it offers a 30-credit master’s degree and a 15-credit certificate. The program’s format emphasizes interdisciplinary learning, collaborative teaching, and the development of close relationships among participants. It creates an environment in which many of the complex issues facing those with public responsibilities are addressed while also giving participants specific skills useful to their work.

Financial support for the degree and the certificate is available through the Herman S. Doi Fellowship and the Pacific Island Health Administration Scholarship. For further information, contact the program office in Saunders Hall 631 or call (808) 956-8260 or (808) 956-3687. Applicants may also apply to the East-West Center.

**Graduate Study**

**Master’s Degree**

The master’s degree consists of a core year, an individuated concentration, a practicum experience, and a capstone. The core year and capstone must be taken first and last in the program, respectively. Once the program begins in the fall, new admissions are not made until the following year.

The core year is an integrated, collaboratively taught curriculum offered in a format that balances lecture and discussion sessions. The curriculum is highly interdisciplinary and integrates a series of perspectives and skills important to effective work in public service. These include communications, the political context of public institutions, economic processes, public ethics, budget and policy processes, administrative law, bureaucratic structure and organizational change, and the role of personal and organizational culture.

The individuated concentration is intended to balance the common work of the core year. It allows each student to design a program of study built around a theme of special personal and professional interest. The concentration is satisfied by completion of 9 credit hours in course work, directed reading, or directed research. Themes are created by the student working in conjunction with a faculty advisor. Anyone electing the thesis (Plan A) option may substitute thesis work for concentration credits with approval of the faculty advisor. The thesis option requires the student to take at least one graduate level research methods course.
The practicum is designed to place individuals in a setting where they may compare organizational structure and processes, study leadership styles, understand community dynamics, gain an international perspective, or develop specific skills. The location of the practicum varies according to the student’s learning goals. In some cases placement in one organization may be modified to become work on a project that takes place across several organizations. Students are encouraged to undertake a practicum that will have the greatest personal and professional benefits.

The capstone consists of a 1-credit planning seminar, taken during the semester preceding that in which graduation will occur, and the concluding 3-credit seminar itself. The focus of the capstone is on group analysis of a public issue of importance in Hawai‘i and the Asia-Pacific region.

The program welcomes a diversity of professional and educational backgrounds and sees these as contributing to the learning environment. The course work is compatible with the schedules of people working full-time.

**Requirements**

MPA candidates must complete 14 credit hours of core requirements, 9 credit hours of individual concentration, 3 credit hours of practicum, and 4 credit hours of capstone. The student must earn at least a grade of B in the practicum and both capstone courses. The thesis option may be selected to replace some or all of the concentration credits.

**Certificate in Public Administration**

The program offers two certificate tracks: (1) public service leadership, and (2) nonprofit management. Each is 15 credits.

The track in public service leadership consists of the 14-credit core year, plus a 1-credit applied professional development seminar, co-designed by those in the certificate program working with an advisor, and taken in the second semester of the core year. The core year surveys issues facing those in public service while providing skills for addressing those issues.

The track in nonprofit management is made up of two 3-credit core courses that provide an overview of issues in the field; 6 credits of electives; a 3-credit practicum.

Courses in both tracks are compatible with working schedules, and each utilizes a cohort model to enhance learning. The nonprofit management certificate may be taken in conjunction with the master of public administration (MPA) degree. The track in public service leadership shares the degree’s core year and some restrictions apply to how it can be counted toward the degree.

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**Public Policy Center**

College of Social Sciences  
Saunders Hall 723  
2424 Maile Way  
Honolulu, HI 96822  
Tel: (808) 956-4237  
Fax: (808) 956-0950  
Email: dcsakai@hawaii.edu  
Web: www.publicpolicycenter.hawaii.edu

**Faculty**

*S. Chandler, PhD (Director)—policy analysis, child welfare, collaborative management*

*S. Moriwaki, PhD (Associate Director)—energy policy, sustainability, community development*

*M. Johansen, PhD—non-profit research and management, educational policy, public policy*

*D. Nixon, PhD—policy analysis, sustainability, aging*

**Cooperating Graduate Faculty**

The Public Policy Center has 68 affiliate faculty representing all of the departments within the College of Social Sciences. See our website for their names and contact information, as well as their fields of interest, research, and areas of teaching.

**The Academic Program**

The mission of the Public Policy Center is to enhance the quality of community life throughout Hawai‘i, the U.S., and the Asia-Pacific region. This mission is achieved through an interdisciplinary approach to teaching, research, service, and application. The center provides opportunities for students to expand their knowledge and gain experience in public policy. It’s premise is that public policy analyses are critical to sound public policy decision-making and that teaching and scholarly work are intertwined and should be continually linked to the community beneficiaries. Public policy is a discipline that seeks to solve public problems through the design, analysis, advocacy of well thought out, evidence-based research. In all levels of government and globally, public needs and limited resources require policy choices that are economically efficient, socially and technically effective, politically and administratively responsive. Such choices exist across a broad range of critical issues, including health, education, the environment, energy, economic development, social welfare policy, and community resilience. Students with experience and knowledge about public policy offer their community essential and meaningful skills and tools needed to analyze, design, and evaluate public policy choices. Students trained with these skills are attractive to employers in the public, nonprofit, and business sectors.

**The Graduate Certificate in Public Policy**

The center offers a 16-credit certificate that allows students to enhance their policy and analytic skills and focus on a substantive policy issue. Students can select courses from a wide range of fields in addition to those offered by the Public Policy Center, including: political science, economics, public administration, urban and regional planning, peace studies and conflict resolution. There is a 2-credit internship requirement and a
2-credit final integration seminar. Students are permitted great flexibility in designing their own program.

**Related Courses**
- PPC 495 Topics in Public Policy (3)
  - (1) Government and Politics (3)
  - (2) Introduction to Public Policy and Analysis (3)*
- PPC 601 Public Policy Internship (2)
- PPC 602 Public Policy Seminar (2)
- PPC 695 Topics in Public Policy (3)*
- POLS 670 Introduction to Public Policy (3)*
- PUBA 662 Applied Policy Analysis (3)
- PLAN 603 Economic Analysis for Urban Planning and Policy (3)
*Taught on-line in the summer session

**For more information**
Please visit our website at www.publicpolicycenter.hawaii.edu or call Susan Chandler at (808) 956-4237 or email her at chandler@hawaii.edu.

**Religion**
College of Arts and Humanities
Sakamaki A-311
2530 Dole Street
Honolulu, HI 96822
Tel: (808) 956-8299
Fax: (808) 956-9894
Web: www.hawaii.edu/religion/

**Faculty**
* H. J. Baroni, PhD (Chair)—Japanese and East Asian religions
* P. Andersen, PhD—Taoism, Chinese religions
* J. P. Charlot, DTh—Polynesian/Hawaiian religions
* J. Frankel, PhD—Islam, Confucianism, comparative religion, mysticism
* R. Lamb, PhD—South Asian religions, Asian monasticism
* J. Lyon, PhD—Christianity, Hebrew Bible, New Testament, history of religion in Hawai‘i
* M. Mohr, PhD—Japanese and Asian religions
* L. A. Siegel, PhD—Indian religions

**Cooperating Graduate Faculty**
G. D. Panisnick, PhD—Western religions

**Degrees Offered:** Undergraduate Certificate in Islamic Studies, BA (including minor) in religion, MA in religion

**The Academic Program**
In keeping with the goals of UH Mānoa, the Department of Religion takes advantage of the state’s strong social and cultural ties with Asia and the Pacific and seeks to enhance those ties. Within this extraordinary multicultural milieu, the Department of Religion serves as a link between the academic community and the many Asian and Pacific religious communities that flourish in Hawai‘i. Most of the major religious traditions—Buddhism, Christianity, Confucianism, Hinduism, Islam, Judaism, Shinto, Taoism, as well as Hawaiian and Polynesian religions—are represented and make Hawai‘i an ideal site and context for a study of Asian and Pacific religious communities and activities.

The Department of Religion is dedicated to the cultivation of a humanistic understanding of a wide range of religious traditions, ritual practices, philosophical speculations, ethical imperatives, and institutional histories. Its investigative approach is interdisciplinary and intercultural.

**Undergraduate Study**

**Bachelor’s Degree**
Undergraduate education in religion includes survey courses in Western, Asian, and Pacific religions. There are also thematic courses dealing with such issues as sexuality and death, politics and ethics, and the relationship between religion and other disciplines, such as anthropology, medicine, political science, and sociology.

**Requirements**
Students must complete 30 credit hours in religion, including at least 18 credit hours in 300- and 400-level courses. A minimum 2.5 GPA in religion courses must be maintained for graduation. Required course: REL 300.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Minor**
**Requirements**
Students must complete 15 credit hours at the 300 level and above. Required course: REL 300.

**Undergraduate Certificate in Islamic Studies**
The purpose of this certificate is to increase understanding of Islam as a world religion through critical analysis of primary and secondary materials, to foster knowledge about the complexity among Islamic societies and their diverse cultural expressions, and to explore the role of Islam and Muslims in present and past world affairs.

This certificate is housed within the College of Arts and Humanities. The participating departments are Art and Art History, History, Philosophy, and Religion. Minimum prerequisites for acceptance into the program for undergraduates are sophomore or higher standing with a minimum GPA of 2.5 and the completion of at least one introductory course within one of the four participating departments with a grade of B or better.

A more complete description and the requirements are described under the Department of Philosophy.

**Graduate Study**

**Master’s Degree**
The department has developed two graduate program plans leading to the MA degree: a thesis-based MA program (Plan A) and a non-thesis track (Plan B). Both Plans A and B are two-year programs.

**Admission Requirements**
Applicants to the MA program in religion must hold a bachelor’s degree from an accredited U.S. college, university,
or its equivalent from a recognized foreign institution of higher learning. Applicants should include in the Statement of Objectives an explanation of how their academic background has prepared them for study in the religion MA program.

Plan A

The thesis program provides students with an opportunity for graduate study in Asian or Polynesian religions. 30 credits are required.

Advancement to Candidacy: Candidacy may be granted after the first semester after completing 9 graduate credits plus REL 600 with a GPA of 3.0 or better (total 12 credits) and the language requirement.

Required courses (9 credits)
- REL 600 History and Theory of the Study of Religion (3)
- REL 700 Thesis Research (3, 3)

Area requirements (9 credits minimum)
Students must take at least three 600-level courses in their area of specialization (Asian or Polynesian).

Electives
Electives consist of any Religion course (400 level and above, excluding 499), other than those that fulfill program and area requirements. Two complementary graduate courses (3 credits each) from other disciplines may be accepted at the discretion of the thesis advisor and graduate chair. No more than two 400-level courses may be used to satisfy this requirement.

Language
To achieve a mastery of language at the second-year level, students are required to complete two years of a language appropriate to their field of specialization (e.g., Chinese, Hawaiian, Hindi, Japanese, Sanskrit, Samoan, Tahitian, or another Asian or Polynesian language approved by the area advisor) with a minimum B-minus grade in the fourth semester of class.

This language requirement will be waived for students demonstrating language proficiency by an equivalency exam. These exams will be set by the student’s advisor and assessed by two faculty readers (one from the Department of Religion and one from the department in which the language is taught).

Language courses will not count towards the 30 credits required for an MA in religion.

Thesis (REL 700)
A maximum of 3 credits per semester for a total of 6 credits of REL 700, usually taken over two semesters is required. Students must be admitted to candidacy and must complete 12 credits before they can register for REL 700.

Completion of an original thesis, demonstrating a mastery of advanced research, analytic, and discursive skills, is required of all students in Plan A.

Each candidate must form a committee of three members of the graduate faculty, one of whom is from outside the department. Faculty reserve the right not to serve on a thesis committee.

After submission of a completed thesis to the committee for its consideration, the candidate must be present for the final oral examination on the subject of the thesis.

After all revisions, as determined by the thesis committee, have been incorporated and the thesis is in final form, the majority of the committee, including the chairperson, passes the student for the master’s degree. A candidate who fails may be re-examined once, provided it is done within one calendar year of the initial examination.

After a candidate has taken 6 credits of 700, the candidate must register for 1 credit of 700 in subsequent semesters and in the semester of graduation.

One bound copy of the approved thesis, including the signature page, shall go on file in the department office and must be submitted to the department office at the same time the final thesis is deposited with the Graduate Division office.

Plan B

The Plan B degree program provides students with a non-thesis opportunity for graduate research and study in Asian or Polynesian religions. Plan B is designed for students who wish to articulate the results of their research in innovative ways using various available technologies. In place of a thesis, the culminating requirement is a Plan B Project, an original research project as described below. 30 credits are required.

Master’s Plan B Procedures
1. Preliminary conference with the graduate chair for the purpose of determining an advisor, proposed courses to fulfill the requirements, and the foreign language for the degree.
2. Candidacy for Plan B students requires a memo from the graduate chair indicating that 12 graduate credits, including REL 600, have been taken with a GPA of 3.0 or better and that the student has prepared a preliminary proposal and secured the support of two graduate faculty members from the Department of Religion to serve on their committee. Committee members will have the responsibility of approving, supervising, and evaluating the project as completed in REL 688 (Plan B Research).
3. Completion of a research project demonstrating a critical understanding of religion in a particular area of Asia or the Pacific or of a topic within the overall region. The project should reveal original insights into selected religious phenomena or area of concentration. Students will be expected to present the results of their research in innovative ways that utilize the arts, various media, or developing technologies, and thereby show their relevance to scholarly discourse. Research projects will be presented in a public forum during the student’s final semester.

Required courses (6 credits)
REL 600 History and Theory of the Study of Religion (3)
REL 688 Plan B Research

Area requirements (9 credits)
Students must take at least three 600 level courses in a particular region of Asian or in Polynesian religions.

Electives (15 credits)
Electives consist of any religion course (400 level and above, excluding 499), other than those that fulfill program and area requirements. Two complementary graduate courses (3 credits each) from other disciplines may be accepted at the discretion of the advisor and graduate chair. No more than two 400-level courses may be used to satisfy this requirement.

Language
To achieve mastery of a language at the second-year level, students are required to complete two years of a language appropriate to their area of specialization (e.g., Chinese, Hawaiian, Hindi, Japanese, Sanskrit, Samoan, Tahitian, or another Asian or Polynesian language approved by the
area advisor) with a minimum B-minus grade in the fourth semester of class.
This language requirement will be waived for students demonstrating language proficiency by an equivalency exam. These exams will be set by the student’s advisor and assessed by two faculty readers (one from the religion department and one from the department in which the language is taught). Language courses will not count toward the 30 credits required for an MA in religion.

Russian Area Studies
College of Languages, Linguistics and Literature
Moore 458
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-4167
Web: manoahawaii.edu/ilea/?page_id=33

Certificate Offered: Undergraduate Certificate in Russian Area Studies
To receive a Certificate in Russian Area Studies, a student must complete certain requirements in addition to a regular major. These are advanced reading and conversation courses in Russian, equivalent to at least the third-year level, and 9 credit hours of work, exclusive of courses taken as part of the major, chosen from an approved list of courses. For more information, contact Professor James E. Brown, Department of Languages and Literatures of Europe and the Americas, 458 Moore Hall, jebrown@hawaii.edu or (808) 956-4167.

Second Language Studies
College of Languages, Linguistics and Literature
Moore 570
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-8610
Fax: (808) 956-2802
Web: www.hawaii.edu/sls

Faculty
* J. D. Brown, PhD (Chair)—language testing, research methods, curriculum design
* T. Hudson, PhD (Graduate Chair)—language testing, reading, methods and materials, English for specific purposes, research methods
* R. Bley-Vroman, PhD—English syntax, second-language analysis, formal models of language acquisition
* G. Crookes, Ph.D—classroom teaching, classroom-centered research, materials and syllabus design, discourse analysis, methodology of science
* K. Davis, Ph.D—qualitative research methods, language policy and planning, literacy, bilingual education
* R. Day, Ph.D—teacher education, teaching of reading, vocabulary, materials development, literature
* T. Grüter, PhD—morphosyntax and semantics, developmental psycholinguistics, language processing, and bilingualism
* C. Higgins, PhD—macro- and micro-sociolinguistics, qualitative research methods, discourse analysis, code-switching
* G. Kasper, PhD—conversation analysis, discourse analysis, pragmatics, qualitative research methods, second language learning as discursive practice
* L. Onnis, PhD—statistical learning, enhancement of learning and training based on cognitive science findings, computational modeling and corpus-based analyses, monolingual and bilingual sentence processing, language evolution
* B. D. Schwartz, PhD—linguistic theory and second language acquisition, second language analysis, second language processing, child second language acquisition
* D. Zheng, Ph.D—cognition and instruction, second language technology and pedagogy, bilingual education, instructional media

PhD in SLS Faculty outside the SLS department
F. Bail, PhD—Human learning and development, instructional formats
A. Bayer, PhD—language and literacy in education
J. M. Bilmes, PhD—cognitive anthropology, human communication, decision-making, conversation analysis, Southeast Asia
H. Cook, PhD—Japanese sociolinguistics, discourse analysis, language socialization and pragmatics
K. Kanno, PhD—Japanese SLA, pedagogical grammar, language analysis
K. Kondo-Brown, PhD—heritage language learning, assessment, Japanese language learning
W. O’Grady, PhD—syntax, first and second language acquisition, Korean
K. Rehg, PhD—phonology, bilingual education, Micronesian linguistics
S. Zhang, Ph.D—research methodology, design and statistics, computer applications, Chinese-English translation and interpretation

Affiliate Faculty
S. McKay, PhD—English as an international language, SL methods and materials, macrosocio-linguistics
H. Nguyen, PhD—interactional competence, classroom discourse, conversational analysis
E. Hauser, PhD—conversational analysis

Degrees Offered: BA in second language studies, MA in second language studies, PhD in second language studies (interdisciplinary), Graduate Certificate in Second Language Studies

The Academic Program
Formerly called the Department of English as a Second Language, the faculty and course work in the Department of Second Language Studies (SLS) have evolved toward a wider view of the study of second- and foreign-language learning and teaching. The department’s programs train students for professional careers in second- and foreign-language education, which includes teaching, teacher training, materials preparation, curriculum and syllabus design, language assessment, and research. Through course work and independent research, students acquire a broad knowledge base of and familiarity with conducting research, as well as a sense of professionalism in second-language studies.
Employment opportunities in this field have expanded rapidly, both nationally and internationally, in various types of educational and occupational institutions (e.g., elementary, secondary, and tertiary levels; publishing; test development for international agencies; and language-training programs for businesses).

The department, whose MA program dates back to 1961, is regarded as one of the most prestigious second language programs in the world. It includes a wide range of general and specialized courses. It has the largest faculty with specializations in second-language studies of any institution in the world. Its faculty members are well respected nationally and internationally through their involvement in scholarly research and publishing projects, including editorialship of books or editorial advisory status on major journals, as well as extensive authorship of journal articles and books. The department enjoys advanced technical support facilities and excellent library resources. It attracts top-quality students and maintains a variety of services and activities that stimulate a high level of student satisfaction and collaboration, including post-graduation employment advice and assistance.

Affiliations
The department is affiliated with (institutional member of) the American Association for Applied Linguistics and the Teachers of English to Speakers of Other Languages. SLS faculty members (J. D. Brown, G. Kasper, L. Ortega, and R. Schmidt) have served on the executive boards of these organizations. Department faculty are also past and present editors of the international journals Applied Linguistics (G. Kasper), Language Learning (Lourdes Ortega), and Reading in a Foreign Language (R. Day, T. Hudson), and have been actively involved in the organizing boards of the Second Language Research Forum and the Pacific Second Language Research Forum.

Undergraduate Study

Bachelor’s Degree
The Bachelor of Arts degree program in second language studies provides students with a comprehensive understanding of a wide range of issues related to how second and foreign languages are learned, taught, and used in local and global contexts. This program, in accord with the values of SLS graduate degree programs, takes the broad view that plurilingual and pluricultural societies have greater success at communication in and across languages, which enables mutual understanding and appreciation, conflict resolution, and negotiation of values.

The program addresses theory, research, and practice, and helps prepare students to become second language specialists who understand the nature of second language learning and use in diverse circumstances, and are able to act upon related challenges that emerge in a variety of settings. The BA in SLS also serves as an excellent preparation for entry into a variety of language-related graduate programs.

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

- 24 credit hours of required courses: SLS 302, 303, 380, 430, 441, 480(alpha), 480P: “Professionalism in SLS”, and 490.

(Note that 480P: “Professionalism in SLS” is the capstone course for the BA, and is separate from the other 480(alpha) requirement.)
- 9 credit hours of elective courses: 300-499 courses from SLS, or 300-499 courses from other departments (as approved by an SLS advisor)

For more information about the BA degree in SLS, contact the department’s undergraduate coordinator. Newly declared majors should make appointments with the SLS coordinator as soon as possible.

Graduate Study
The department offers the MA degree in second language studies, the Advanced Graduate Certificate in second language studies, and the PhD degree in second language studies.

Master’s Degree
The main goal of the MA program is to serve the needs of prospective and practicing teachers, administrators, and researchers in the area of teaching second and foreign languages. Attention is given to the areas of second- and foreign-language acquisition, applied psycholinguistics, second-language use, second-language classroom research, bilingual education, curriculum development, and teacher education.

The program emphasizes theory as well as practice. In addition to the courses dealing with approaches to language teaching, materials, and testing, core courses are concerned with the linguistic, psychological, and sociological aspects of language. These latter courses, which are primarily theoretical, are designed to provide an essential foundation on which the more practically oriented ones can build. The emphasis on theory in certain core courses should be kept in mind by potential applicants.

The MA in SLS does not result in teaching certification. Contact the College of Education for more information regarding State of Hawai‘i teacher certification.

Entry into the MA program is possible in both the fall and spring semesters. The GRE General Test is required of all native English speakers. Students whose native language is not English are required to have a minimum internet (iBT) TOEFL score of 100 (250 computer-based CBT or 600 paper PBT), with a score of 105 iBT (260 CBT or 620 PBT) preferred, or a minimal IELTS band of 7.0, with 7.5 preferred.

Three letters of recommendation are also required; forms are available at www.hawaii.edu/sls/sls/?page_id=154.

Applicants must submit a statement of purpose, outlining their objectives in graduate study and reasons for applying. This maximum five-page essay should focus on their experiences and training in languages, language learning, and/or language teaching, and how these relate to their long-term goals as professionals in the field of second-language learning and teaching.

All students in the MA program, whether Plan A, Plan B, or Plan C, are expected to have undergone second- or foreign-language learning (two years of college study or equivalent). Students who have not had such experience before entering the program are required to take at least a semester of language study, which does not count toward the 36-credit-hour MA requirement.

Contact the College of Education for more information regarding State of Hawai‘i teacher certification.
Plan A (Thesis) Requirements
- Four core courses (12 credits): SLS 441, 600, 650, 660
- One graduate seminar: SLS 730, 750, 760, or 775
- Five electives (15 credits) approved by the advisor
- SLS 700 Thesis Research (6 credits)

Plan B (Non-thesis) Requirements
- Four core courses (12 credits): SLS 441, 600, 650, 660
- One graduate seminar: SLS 730, 750, 760, or 775
- Seven electives (21 credits) approved by the advisor
- Submission of an acceptable scholarly paper

Plan C Requirements
Plan C is an individually planned program for established language scholars who wish to pursue an additional degree. For admission requirements, contact the graduate chair.

Specialization
As an option, the 36-credit MA program allows students to concentrate in a particular area of specialization. Each specialization requires a distinct selection of four courses from among various electives, as well as a related seminar. Five areas of specialization are available:
- Critical second language studies
- Language assessment, measurement, and program evaluation
- Language teaching ("English" can be designated)
- Language and social interaction
- Second language acquisition

For further information about these specializations, see www.hawaii.edu/sls/, link to "Programs," then link to "M.A. in SLS."

Additional information concerning the MA program and its requirements is contained on the link of the website above. Some of the topics included are financial aid, transfer of credit, and requirements such as the scholarly paper.

Advanced Graduate Certificate
The Advanced Graduate Certificate in second language studies provides advanced training to those who already have graduate degrees (master’s, doctorate) in applied linguistics, foreign languages, ESL, or related fields. The program is specifically aimed at those who wish to re-specialize or to update their training to include recent developments in the field. Applicants must have completed an MA or PhD degree in an appropriate field, or they must be a continuing student in an MA or PhD program in an appropriate field at UH Mānoa, before entering the certificate program. Graduate students enrolled in other programs at UH Mānoa are permitted to apply for the certificate while they concurrently complete another graduate degree. For specific information and guidelines on the application process, see www.hawaii.edu/sls/, link to "Programs," then link to "Advanced Graduate Certificate in SLS."

The course of study typically lasts about two semesters and includes 15 credits (five courses) and a research paper (scholarly paper) to be produced during the program. Up to 9 credits of course work may be transferred from a prior program. Students who complete the certificate in SLS will obtain knowledge and skills in second language studies with possibilities including second language analysis, learning, pedagogy, and use, in utilization of research findings, and application of research methods.

As a culminating activity in the program, students are required to submit a paper which demonstrates the student’s ability to conduct independent high quality scholarly research. This paper must be new research (i.e., different from prior MA level work) conducted under supervision of the program’s faculty.

Doctoral Degree
The PhD program in second language studies (SLS) is offered by the Department of Second Language Studies. The graduate faculty of the program is interdisciplinary—drawn not only from the SLS department but also from faculty in the Departments of East Asian Languages and Literatures, Educational Psychology, Indo-Pacific Languages and Literatures, and Linguistics. The SLS PhD is a WICHE approved program.

The courses in the program are organized into four areas of specialization:

1. Second language analysis—Structural analysis of learners’ language development; comparison of native and nonnative languages; second-language varieties; differences arising from social and geographical contexts; phonological, grammatical, and discoursal properties; typological factors; putative universals.
2. Second language learning—Studies of the biological, psychological, social, and cultural factors in the language-learning process; the role of universals; interlanguages; the processes of comprehension and production.
3. Second language use—Studies of the social functions of second and foreign languages; pidgins, creoles, and dialect variation; roles of social and geographical contexts; pragmatics; discourse analysis; cross-cultural and inter-ethnic communication; sociopolitical factors.
4. Second language pedagogy—Research into language-learner needs (including immigrant needs); formulation of needs-based curriculum objectives and syllabi; computer-aided instruction; program administration; evaluation and language assessment.

The basic requirement for admission into the PhD program is the completion of an MA in ESL or SLS, applied linguistics, or second- or foreign-language education. Applicants with graduate degrees in such related disciplines as anthropology, education, English, modern languages, linguistics, and psychology are also welcome. In addition to the admission requirements of the Graduate Division, the SLS PhD program requires (a) letters of recommendation (three of which should be from academic sources); (b) copies of an MA thesis or scholarly paper, publication, or other research; (c) a statement of research interests; (d) a brief description of relevant professional experience and language skills; and (e) GRE General Test scores (for both native and nonnative speakers of English). Applicants whose native language is not English are required to have a minimum internet (iBT) TOEFL score of 100 (250 computer-based CBT or 600 paper PBT), with a score of 105 iBT (260 CBT or 620 PBT) preferred, or a minimal IELTS band of 7.0, with 7.5 preferred.

Entry into the PhD program is possible in both the fall and spring semesters. Candidates are encouraged to apply early. There are various sources of financial aid. The program strives to provide financial support for the best qualified doctoral students by means of research and teaching assistantships. For
additional information, go to www.hawaii.edu/sls/, link to “Programs,” then link to “Doctorate in SLS.”

Requirements

Students work closely with their advisors and doctoral committees in defining their individualized programs. In order to establish a common core of expertise among students, specific courses are designated according to the background of each student. The basic preparation expected as part of their MA training is at least one graduate-level course in each of the four areas of specialization. Beyond basic preparation, each doctoral student’s program must include a minimum of two graduate-level courses in three of the four areas of specialization and a minimum of two graduate-level courses in research methods. At least two seminars (700 level) are required.

Doctoral candidates must pass a comprehensive examination before the dissertation and a final oral examination defending the dissertation.

Students must also document and reflect on substantial, diverse learning experiences in two languages other than their first language. This requirement is fulfilled by submitting a 3- to 5-page reflective essay during the first two years of study and before advancement to candidacy. Examples of substantial and diverse language learning experience include:

- Attaining L2 competence for functioning successfully in an L2 academic context
- Completing a primary, secondary, or higher education degree in a language other than the first language
- Growing up with two or more languages
- Teaching a language (or in a language) other than the first language
- Engaging in research that involves the analysis of data in another language

For details on this requirement and other information on the PhD program, see the SLS website.

English Language Institute

College of Languages, Linguistics and Literature
Moore 570
1890 East-West Road
Honolulu, HI 96822
Tel: (808) 956-8479
Fax: (808) 956-2802
Email: uhmeli@hawaii.edu
Web: www.hawaii.edu/eli

The English Language Institute (ELI) is located in the Department of Second Language Studies. The ELI’s primary purpose is to provide English instruction for international and immigrant students or others, whose native language is not English to facilitate their academic studies at UH Mānoa. The ELI program is only for students who have been admitted to UH Mānoa.

All potential ELI students admitted to UH Mānoa are referred to ELI to determine if they must take the ELI placement test before registering for UH Mānoa courses. If a student does not fulfill this obligation, ELI will place a hold on the student’s registration. The ELI placement test is generally offered three times at the beginning of each semester. Information about the testing dates and times can be found on the ELI website or the UH Mānoa Registration Homepage. Students can sign up for ELI placement tests online or in person at Moore 570 prior to the testing date.

ELI Exemptions

Students are exempt from taking the ELI placement test if they meet any of the following conditions: (a) the student is a native speaker of English; (b) the student has received a score of 100 or better on the internet-based TOEFL, a score of 250 or better on the computer-based TOEFL, or a score of 600 or better on the paper-based TOEFL; (c) the student has received a score of 7.0 or better on the IELTS; (d) the student has received a score of 460 or better on the verbal section of the ACT; (e) the student has received a score of 540 or better on the verbal section of the SAT if taken before March 2005, or a score of 540 or better on the critical reading section if taken in March 2005 or thereafter; (f) the student has received a combined score of 48 on the reading and English sections of the ACT and neither subscore (reading or English sections) is lower than 21; (g) the student has an Associate of Arts degree from a community college within the UH System; (h) the student has obtained the equivalent of 60 transferable semester credits with a GPA of 2.0 or better, all earned in classroom settings at regionally accredited colleges or universities in the U.S., or from colleges or universities whose academic standing is recognized by UH Mānoa and where English is the primary language of instruction; or (i) the student has completed six years of full-time schooling with English as the medium of instruction at a middle school, high school, college, or university in Australia, Canada (except Quebec), Ireland, New Zealand, the United Kingdom, or the U.S. Documentation of all six years is required.

These exemption criteria apply at the time students are admitted to UH Mānoa. An exemption on the basis of one of these criteria may be automatically granted by UH Mānoa, or it may be granted by the ELI office if the student can provide the appropriate documentation, including official transcripts or test results.

Assignment to ELI Courses

All other potential ELI students who have been admitted to UH Mānoa must take the ELI placement test before they can register for courses. Placement into ELI courses or exemption from ELI courses will be based on the test results. Students pursuing online degrees should contact the ELI Director for further information. All ELI courses must be completed within the first year of study at UH Mānoa. Students who do not complete ELI coursework as planned may not be allowed to graduate.

Relationship to Other Course Work

ELI courses are equivalent to 3-credit courses when considering a student’s course load. Students placed into ELI courses need to reduce the number of additional credit courses they can take and should expect to make slower progress in their regular UH Mānoa studies. This is an especially important factor in some graduate programs and should be considered carefully by students whose time or financial support is limited.
Hawai‘i English Language Program
College of Languages, Linguistics and Literature
Makai Campus 13-1
1395 Lower Campus Road
Honolulu, HI 96822
Tel: (808) 956-6636
Fax: (808) 956-5100
Email: eslhelp@hawaii.edu
Web: www.hawaii.edu/eslhelp

The Hawai‘i English Language Program (HELP), administered by the Department of SLS, is a noncredit intensive academic English skills program for students who wish to improve their English language proficiency for academic, business, or professional pursuits. Most students in the program are preparing to enter UH Mānoa or another American college or university. HELP students may receive Conditional Admission to UH Mānoa without a TOEFL score by completing two terms at the highest level of HELP, after which they may take the ELI placement exam to see if further English preparation is needed. HELP offers a skills-focused content-based curriculum to prepare students for success in academic study in addition to TOEFL preparation courses. Admission to HELP is open to individuals 17 or older who have completed high school or its equivalent. There are four 8-week sessions each year beginning in January, March, August, and October. HELP also offers 4-week summer programs in May, June, and July. For an application packet and information, go to www.hawaii.edu/eslhelp.

Sociology
College of Social Sciences
Saunders Hall 247
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-7693
Fax: (808) 956-3707
Email: socdept@hawaii.edu
Web: www.sociology.hawaii.edu

Faculty
*V. K. Kanuha, PhD (Chair)—multicultural issues, gender violence, native Hawaiian health, HIV
*P. G. Steinhoff, PhD (Graduate Chair)—collective behavior/social movements, comparative sociology (Japan), political sociology
*S. K. Chai, PhD—social theory, economic development, comparative sociology (Asia)
*K. Irwin, PhD—criminology, deviance and social control, qualitative methodology
*D. T. Johnson, PhD—criminal justice, comparative sociology (Japan), law and society
*H. Koo, PhD—comparative sociology (Korea), social stratification, development
*Y. J. Lee, PhD—quantitative methodology, demography, gender stratification, aging and health
*K. Mossakowski, PhD—medical sociology, stress and mental health, life course and aging, social psychology, social epidemiology, race/ethnicity
*S. Nakajima, PhD—economic sociology, organizations, culture, sociology of film and media, Chinese society
*A. B. Robillard, PhD—ethnomethodology, medical sociology, comparative (Pacific Islands), disability
*H. Saito, PhD—sociological theory
*N. Sharma, PhD—race/ethnic/minority relations, theory/migration and immigration
*L. Uperesa, PhD—race and race relations, global anthropology, sociology and ethnic studies
*D. W. Wood, PhD—medical sociology, evaluation research, quantitative methodology, substance abuse prevention and treatment
*S. Wurtzburg, PhD—gender, ethnicity, violence, addictions, Pacific Islands
*W. Zhang, PhD—medical sociology, social epidemiology, research methods

Cooperating Graduate Faculty
M. Brown—UH Hilo criminology, gender and women’s issues
M. Chesney-Lind, PhD—criminology, gender and women’s issues
J. Chinen, PhD—women and work, race, class and gender, race and ethnic relations
M. Delucchi—sociology of education
A. Kimura, PhD—women’s study

Affiliate Graduate Faculty
S. Kanaiaupuni, PhD—demography, education, Native Hawaiians
R. D. Retherford, PhD—population, social change (Asia)
P. S. Xenos, PhD—demography, family relations and youth, sexuality, comparative (Asia)

Adjunct Faculty
P. Adler, PhD—conflict management, community studies
J. Dannenberg, JD—law and society
J. Manis, PhD—social psychology, social problems

Degrees Offered: Certificate in Social Science and Health; BA (including minor) in sociology; MA in sociology; PhD in sociology

The Academic Program
Sociology (SOC) is the study of how society organizes itself and how various groups interact with each other and the consequences of these processes. Sociology’s subject matter includes marriage and family patterns, race and ethnic relations, demography, social change, class structure, formal organizations including bureaucracies, value systems, conflict, deviant behavior, and the people and institutions of other societies.

Sociology uses a range of research techniques for studying social phenomena that can be applied to many areas, whether one is interested in the incidence of crime, client satisfaction, policy evaluations, or demographic trends. In addition to preparing people as professional sociologists in academic settings, sociology is an excellent background for careers in law, social work, public health, urban planning, public administration, and other fields. The graduate program provides students with a foundation in basic theory and methods of research. In addition, faculty and advanced graduate students are involved in several broad areas of sociological interest: the comparative sociology of Asia; population studies; the study of crime, law, deviance, and human services in the U.S.; aging and medical sociology; and race and ethnic relations.
**Undergraduate Study**

**Bachelor’s Degree**

**Requirements**

Students must complete a prerequisite introductory sociology course and 30 credit hours of upper division courses, including:

- three 400-level courses
- SOC 300 and 321
- one course from SOC 475, 476, 478, or SOCS 225 (Note: SOCS 225 is a lower division course and cannot be counted toward required upper division credit hours)

Consult the department for graduate and career opportunities.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Minor**

**Requirements**

Students must complete a prerequisite introductory-level sociology course and 15 credit hours, including:

- SOC 300
- One 400-level course
- Three other upper division sociology courses
- SOC 100 or any 200-level course is a prerequisite for all 300-level courses; SOC 300 is a prerequisite for all 400-level courses
- To fulfill major or minor requirements, courses must be passed with a grade of C (not C-) or better

**Undergraduate Certificates**

For information about applying for one of the following certificate programs and a list of the available courses, please see the undergraduate advisor in sociology or in the designated department.

**Interdisciplinary Certificate in Social Science and Health**

The purpose of this certificate is to supplement the disciplinary major of students who wish to pursue careers in the field of health and health care by enhancing the breadth, quality, and coherence of their education through taking health-related courses in a variety of different academic disciplines.

**Requirements**

The requirements are designed to conform to criteria specified for undergraduate certificates for UH Mānoa and also to meet the diversification graduate requirement in the Colleges of Arts and Sciences (Option 2, Depth). The requirements are:

- 15 credit hours of five courses. Courses cannot be double-counted for an academic major. However, a student can count a course from the same department as their major, but it cannot then be used to satisfy the major requirement.
- 2.5 GPA or better in courses
- courses must be taken from a minimum of three different academic departments
- One course from ANTH 425 or ECON 434 or SOC 354

**Graduate Study**

Two programs of graduate study in sociology are offered: a PhD program, intended to provide a professional basis for research and university teaching, and an MA program, designed to offer a general sociology curriculum and specialized areas of study relevant to career lines other than university scholarship. The following are brief descriptions and do not list all aspects of procedures and requirements; the department provides a complete statement of its graduate degree program on its website at www.sociology.hawaii.edu. All requirements specified by the Graduate Division and general university regulations also apply.

Applications for graduate study in the department must specify whether they wish to enter the MA or PhD program. University transcripts, a Statement of Objectives, letters of recommendation, and GRE General Test scores are required of all applicants.

A sample of written work is also required of applicants to the PhD program and recommended for applicants to the MA program. An undergraduate major in sociology is not required for admission, but makeup course work may be required in some cases. Applications will be accepted for either fall term or spring term admission. The application deadline for admission are January 15 (international students) and February 1 (domestic students) for the fall semester and August 1 (international) and September 1 (domestic) for the spring semester. Please see the department website for more information and links to appropriate graduate division pages.

**Master's Degree**

The department offers an MA Plan A (thesis) and MA Plan B (non-thesis) program.

**Plan A (Thesis) Requirements**

The MA curriculum in sociology (Plan A) should prepare the student for positions involving expertise in social research. In addition, preparatory training is provided to those who are thinking of aspiring to a doctoral degree, but feel they need more preparation. However, an MA candidate cannot assume that satisfactory completion of this curriculum will lead to placement in the department’s PhD program.

The Plan A program aims to provide the student with a firm foundation in sociological theory, methods and statistics, as well as their application to the study of various substantive aspects of society.

A minimum of 30 credit hours of sociology-related course work is required for this program, as well as the successful completion of an MA thesis. All candidates are required to take at least one course each in the core areas of sociological theory, research methodology, and social statistics at the 400 level or higher, as well as five substantive courses, of which four must be at the 600 level or higher. In addition, students must take 6 credits of thesis writing (SOC 700). The thesis is a substantial research project that shows a student’s ability to produce original and substantive and original intellectual work. All courses credited toward the 30-credit hour minimum required for the MA degree must be passed with a grade of B or better.

The first semester’s work is planned in consultation with the graduate chair and a temporary advisor appointed by the graduate chair. During the first semester, under the guidance of the temporary advisor, the student prepares a statement outlining a study plan that reflects his or her special interests and meets the credit requirements of the program. By the end of the second semester, the student should form a thesis committee of three
or more faculty members, generally drawn primarily from the department.

The thesis committee assists the student in deciding upon a thesis topic. The student then writes thesis proposal, which must be approved by the committee. Under the supervision of the committee, the student carries out the proposed research and writes the MA thesis. When the committee feels the student is ready, the student submits the final draft of the thesis, and the committee conducts a final oral examination. Both the oral examination and the written paper must meet the committee’s approval for an MA to be awarded.

**Plan B (Non-thesis) Requirements**

A Plan B (non-thesis) MA is also offered. It is for those students who have no intention of later moving into a PhD program, but would like to acquire sociological research skills for use in applied settings. Details regarding this offering may be obtained from the department website.

**Doctoral Degree**

This is an academically-oriented program. It is designed to provide the student with a firm foundation in sociological theory, methods, and research so the student is prepared to engage in professional research and university teaching.

The PhD program is designed to give the student systematic exposure to sociological theories, methods, and statistics, as well as their application to a number of substantive areas of society. It also provides the opportunity to develop special, high-level competence within an area of research, and the training to publish and present this research in professional settings.

The first phase of the PhD program provides basic training in theory, methods, and research. The course requirement in this phase is to complete five required courses in theory, methods, and statistics, as well as 15 additional course credits consisting of substantive courses and up to three credits of SOC 699. All courses that count towards PhD requirements must be at the 600 level or higher and passed with a grade of B or above. The minimum total number of course credits necessary for graduation is 33, but most PhD students take more than the minimum in order to gain adequate knowledge. Completing non-course requirements (QR, research paper, comprehensive, dissertation) generally takes more time than course requirements. Please consult the department website for more specifics regarding each of the stages in the PhD degree.

By the third semester, the student should form a guidance committee consisting of at least three faculty members, typically drawn primarily from within the department. By approximately the fourth semester, the student submits two of their best course papers for their qualifying review. The papers are judged by a specially constituted qualifying review panel. The qualifying review must be passed before proceeding onto Phase II of the PhD program.

The second phase provides advanced training in areas of concentration and dissertation research. The course requirement in this phase is to take three additional credits of substantive courses at the 600 level or above. In addition, the student is required to, in sequence, write a research paper suitable for publication in a professional journal, take a written and oral comprehensive examination on two selected areas of concentration, write a dissertation proposal, finish writing, and orally defend a dissertation.

Early in the second phase, the student must organize a dissertation committee consisting of at least five members of graduate faculty in accordance with graduate division rules. Under the direction of this committee, the student must complete an independent research paper that has the format of and meets the standards of a publishable journal article.

Preferably by the fifth semester, all PhD students must take a comprehensive examination from the dissertation committee. The written examination covers two broadly defined research areas, as determined by the student and the dissertation committee. The student develops a bibliography for each area, and the dissertation committee makes up questions from each. After the student has taken the written examination, the dissertation committee evaluates the results and proceeds to hold a closed oral examination to determine whether or not the student is prepared to undertake dissertation research.

Following successful completion of the comprehensive examination, the student prepares a dissertation proposal. This proposal describes the theoretical basis and the research strategy to be employed in the study of the dissertation problem. When it has been successfully defended before the doctoral committee, the student proceeds to the research and writing phase of the dissertation. The dissertation should represent a major original scholarly contribution to the field of sociology suitable for publication in the form of a monograph book. A PhD is given only after completion of the dissertation text and oral defense to the satisfaction of the dissertation committee.

**Theatre and Dance**

College of Arts and Humanities
Kennedy Theatre 115
1770 East-West Road
Honolulu, HI 96822
Tel: (808) 956-7677
Fax: (808) 956-4234
Web: www.hawaii.edu/theatre

**Faculty**

- P. Mitri, MFA (Chair, Director of Theatre)—acting, voice, movement
- G. Lizenbery, BFA (Associate Chair, Director of Dance)—modern dance, kinesiology, movement analysis
- M. Branner, MFA—theatre for young audiences
- G. Cannon, AB—acting, directing, TV/film
- J. Dodd, MFA—scene design
- E. Fisher, DAD—modern techniques, dance history, choreography
- J. Iezzi, PhD—Asian theater
- K. Miller, MFA—dance ethnography, visual media for dance, research
- L. O’Malley, PhD—theater history, dramatic literature
- K. Pauka, PhD—Asian theater
- A. Schiffer, MFA—creative dance and theater, pedagogy; dance/theater internships
- C. Vasek, MFA—costume design
- M. Wessendorf, PhD—dramatic literature, theory
- E. Wichmann-Walczak, PhD—Asian theater

* Graduate Faculty
Affiliate Graduate Faculty
M. Cristofori, MA, MBA—theory and dance history
H. Glass, MA—improvisation, choreography
P. Leong, MA—Asian theater, movement
M. Wong, MA—modern dance, choreography

Degrees Offered: BA (including minor) in dance, BA in theatre, BFA in dance theatre, MA in dance, MA in theatre, MFA in dance, MFA in theatre, PhD in theatre

The Academic Program
The Department of Theatre (THEA) and Dance (DNCE) is comprised of two separate but related disciplines.

Theatre includes the study of dramatic literature and theory; acting and directing; stage, costume, and lighting design; stagecraft; playwriting; and Asian Theater and TYA (Theatre for Young Audiences). Imaginative and creative individuals interested in the disciplined, practical application of classroom theory are suitable candidates as theater majors. Teaching and professional stage, film, and television work are typical professions of theater majors, but the analytical and practical skills, discipline and self-confidence, creativity, problem solving, and ability to work toward common production goals are applicable to all professions. The theater major will benefit from a comprehensive curriculum that includes the world’s most noted Asian theater program and a nationally respected TYA program.

Dance is the art of human motion. It encompasses the study of human movement as it relates to the physical sciences, music, theater performance and production, history, cultural context, education, visual design, and human expression. Dance majors find careers in the areas of performance, choreography, teaching, arts administration and production, history and criticism, and research. UH Mānoa’s dance program offers comprehensive theory courses and a wide variety of dance techniques and styles. The program is considered unique with its offerings in dance ethnology and Asian and Pacific dance.

Affiliations
The department belongs to the Hawai'i State Theatre Council and participates in the Kennedy Center American College Theatre Festival. The Asian theater program is affiliated with the Association for Asian Performance.

The dance program is affiliated with the American College Dance Festival Association and the Council of Dance Administrators.

Advising
After being admitted as majors in the theater program, undergraduates must consult each semester with the theater undergraduate advisor. Newly admitted theater graduate students should consult each semester with the director of graduate studies in theater for initial advising. After one year of study, a graduate student is expected to select from the graduate faculty a permanent advisor well-versed in the area of the student’s concentration.

In dance, undergraduate majors must consult with the dance undergraduate advisor every semester. Graduate students must consult with the director of graduate studies in dance each semester.

Undergraduate Study

BA in Theatre
Students must complete 42 credit hours, including:
- THEA 240, 311, 312, 411, and 412
- Two courses in Asian theater (one in theory/history/literature, one in performance)
- One course each in acting, voice/movement, directing, design, and youth theater
- 6 credits of theater workshop
- Recommended additional courses: ART 101, DNCE 150 or 255, and MUS 106 or 107
- Graduation requirements include the submission of a portfolio of student work eight (8) weeks into the student’s final semester, an exit interview, and a written assessment of the student’s tenure at UH Mānoa.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

BA in Dance
This degree is designed for students with a broad interest in dance and allows them maximum flexibility to satisfy requirements in their greatest areas of interest.

Students must complete 40 credit hours: 29 credits of required courses and 11 of elective courses. BA majors are required to register for and attend a technique course each semester. Elective credit hours are determined in consultation with an advisor and based on the student’s desired focus within dance, such as children’s dance, choreography, dance ethnology, or technical theatre production.

Course Requirements
- DNCE 151, 255, 260, 360 or 361, 370 or 490, 452, or 453
- THEA 200C, 200D, or 200E
- 12 credits of dance technique at the 200 level or above, including:
  - 3 credits in ballet
  - 3 credits in modern dance
  - 3 credits from two different Asian/Pacific dance forms and at least one of these in Asian dance
- 11 credits of focus electives to be selected from:
  - Asian and Pacific performance courses, related courses in ethnomusicology, Asian theatre, anthropology, Hawaiian studies, Pacific Island studies, or ethnic studies

Other Requirements
BA Dance students are required to participate in at least one (1) UH dance production per year (e.g., student dance concerts, mainstage dance concerts, as a performer or crew member). BA majors are required to attend the annual end-of-year assessment class/BFA audition. BA majors are required to take at least one technique class per semester.

Graduation requirements include the submission of a portfolio of student work including a student assessment essay, exit interview, and survey.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.
BFA in Dance Theatre

This program is designed for students who wish to pursue professional careers as dancers, teachers, and/or choreographers. Admission to the program is by audition held annually usually in April.

Incoming students should register as BA Dance majors and audition for the BFA degree during spring semester of that academic year, if interested in the BFA degree program.

Course Requirements

Students must complete 62 credit hours, including:
- DNCE 151, 250, 360, 361, 362, 370, 371, 372, 452, 453
- 1 credit hour of DNCE 495
- 6 credit hours of DNCE 321
- 6 credit hours of DNCE 331
- 3 credit hours of DNCE 470 or 480
- 2 credit hours in two different Asian or Pacific dance performance courses and at least one of those in Asian dance
- 6 credit hours of ballet technique at the 300 level or higher (DNCE 321 or 421) or 6 credit hours of modern dance technique at the 300 level or higher (DNCE 331 or 431)
- 6 credit hours of DNCE 421 or 431
- 2 credit hours of THEA 200C, 200D, or 200E

Other Requirements

BFA Dance students are required to participate in at least two (2) UH dance productions per year. At least one must be in a performance capacity. Attendance at the BFA auditions is required each year by the BFA major. Prior to the senior project, BFA students must audition choreography for a fall or spring student concert by the sixth semester of the dance major. BFA majors are required to register for a technique course every semester.

Graduation requirements include the submission of a portfolio of student work including a student assessment essay, exit interview, and survey.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Minor in Dance

Course Requirements

Students must complete 15 credit hours numbered 200-level and above, including nine credit hours in courses numbered 300 or above. A maximum of 9 credit hours from dance technique courses may be designated for the minor.

Minor in Theatre

Requirements

Students must complete 15 credit hours in courses numbered 200 or above, including 9 credit hours in courses numbered 300 or above. Courses must include one from performance, one from technical theatre, and one from history/literature. Participation in two departmental productions is required. Theatre minors should consult with the undergraduate theatre advisor.

Graduate Study

Most graduates, especially those with PhD degrees, pursue teaching careers, but there are many career opportunities in community theaters, dance companies, radio, television, films, and professional theaters.

The degrees in Asian theater 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, Utah, Washington, and Wyoming are eligible, upon admission, to enroll at Hawai‘i-resident tuition rates.

Master’s Degrees in Theatre

Master’s degrees in theatre offered are the MA Plan A (thesis) and Plan B (non-thesis) and the MFA Plan B (creative/performance). For the MA Plan A, the candidate does research in theater history, theory, or dramatic literature; the thesis may be in Asian or Western theatre. For the MA Plan B, a generalist degree, the candidate takes additional advanced course work in lieu of writing a thesis. The MFA Plan B emphasizes creative or performance work in six concentrations: acting, directing, design, and playwriting (each of these four may include Western, Asian, and youth theater work), Asian performance, and youth theater.

Applicants must present an adequate undergraduate background and submit three letters of recommendation, as well as official scores from the GRE General Test. The department expects that all incoming graduate students will have taken at least two courses in dramatic literature and one course in each of the following four areas: acting, directing, design or technical theatre, and theater history. If such courses have not been taken, they will be made up as undergraduate deficiencies while in residence for the master’s program and will not count toward the credit accumulation for the master’s degree. The TOEFL minimum score for foreign students is 600. Applicants for the MA Plan A degree are also expected to submit a major paper; those seeking the MFA degree should present appropriate supplementary materials such as slides, photographs, video, or play scripts.

Application deadline for the fall semester is February 1 (January 15 for foreign applicants). Spring semester application deadline is September 1 (August 1 for foreign applicants). Upon the successful completion of 12 graduate credit hours within the department, the elimination of any undergraduate deficiencies, and (for MFA students) the presentation of an acceptable qualifying creative project, the student may be admitted to candidacy.

Students pursuing an MA in theatre develop, with an advisor, a program appropriate for their interests (minimum of 39 credit hours). The program must include 3 credit hours in each of the following areas: research methods (THEA 600); Asian theater theory/history; Western theater theory/history; and graduate theatre workshop (THEA 690), in which students receive 1 or 2 credit hours (depending upon extent of involvement) for working on a single Kennedy Theatre production. MA (Thesis) students take an additional 6 credit hours in theatre history or theory; 3 credit hours in a creative area. MA (Non-Thesis) students take 3 credit hours each of youth theatre, creative drama, creative movement, or Western puppetry; Asian or Western acting or directing; design/technical theater. A minimum of 18 credit hours must be in courses numbered 600 to 798 (excluding 699 and 700); a minimum of 6 credit hours must be in Asian theatre (excluding 690); credit for 699 may not exceed 9 credit hours. In addition, MA (Thesis) students must complete 6 credit hours of THEA 700 Thesis Research. For both MA
degrees, students will take a four-hour written comprehensive examination followed by an oral examination. MA (Thesis) students will have an additional oral comprehensive on the written thesis.

MFA students in all concentrations will take a minimum of 60 credit hours comprised of 12 credit hours of foundation courses (3 credits in research and 9 in history and/or theory); 39 credit hours of concentration courses, including enrollment in THEA 690 Graduate Theater Workshop, in which students receive 1 or 2 credit hours (depending upon extent of involvement) for working on a single Kennedy Theatre production, and a culminating project for which the student will enroll in 6 credit hours of THEA 695 Creative Project; and 9 credit hours of electives. Of the total 60 credit hours, 30 must be at the 600 level or above. There is no written comprehensive examination for the MFA degree. However, the culminating project will include a written component that goes beyond the descriptive record of the project; the thesis committee, in conjunction with the candidate, will decide the nature, extent, and scope of the written component in each case. Additionally, each student will be given an oral examination on the culminating project.

To receive a list of specific recommended courses for meeting MA and MFA requirements, contact the departmental director of graduate studies. Students will select their elective courses (MA Plan A, 12 credits; MA Plan B, 18 credits; or MFA Plan B, 9 credits) in consultation with their advisors to reflect their special interests. Students with sufficient undergraduate preparation may take approved related graduate courses in other departments for credit toward their degree.

In consultation with an advisor, each MFA student develops a program appropriate for his or her interests within the specific requirements of one of the following concentrations:

**Acting**

For the concentration in acting, students must complete 3 credits in research; 9 credits in history and/or theory (minimum 3 credits in Asian and 3 credits in Western); 6 credits in voice; 6 credits in movement and/or dance; 12 credits in acting (minimum 3 credits in Asian and 3 credits in Western); 3 credits in additional creative/performance courses in above areas or in directing, design/technical theater, or playwriting; 6 credits of THEA 690 Graduate Theater Workshop (a minimum of 4 credits in acting and 1 credit in technical theater; 1 credit may be in design, directing, playwriting, etc., and 6 credits of THEA 695 Creative Project.

**Design**

For the concentration in design, students must complete 3 credits in research; 9 credits in history and/or theory, Asian and/or Western (minimum one 3-credit seminar); 3 credits in costume design or construction (400 level or above); 3 credits in lighting design (400 level or above); 3 credits in set design (400 level or above); 3 credits of THEA 657 Seminar in Design; 9 credits in additional design courses (costume, lighting, or set, 400 level or above); 6 credits in creative/performance courses (in at least two areas including acting, directing, dance, playwriting, puppetry, or theater management); 6 credits of THEA 690 Graduate Theater Workshop (minimum 4 credits in design; 2 credits may include acting, directing, playwriting, stage managing, etc.; minimum 2 credits in faculty-directed and 2 credits in student-directed shows); minimum 3 credits in Asian theater (excluding THEA 690); and 6 credits of THEA 695 Creative Project.

**Directing**

For the concentration in directing, students must complete 3 credits in research; 9 credits in history and/or theory (minimum 3 credits in Asian and 3 credits in Western, 3 credits of which must be in theory); 3 credits in script analysis; 12 credits in graduate-level directing (minimum 3 credits in Asian and 3 credits in Western); 6 credits in design/technical theater (in two areas—theater design, costume, lighting, or set); 6 credits in creative/performance courses (in at least two areas—acting, choreography, dance, movement, music, playwriting, puppetry, or voice); 6 credits of THEA 690 Graduate Theater Workshop (minimum 4 credits in directing including assistant directing and dramaturgy; 2 credits may include acting, design, playwriting, stage managing, etc.; minimum 2 credits in faculty-directed and 2 credits in student-directed shows); and 6 credits of THEA 695 Creative Project.

**Playwriting**

For the concentration in playwriting, students must complete 3 credits in research; 9 credits in history and/or theory (including 3 credits in Asian and 3 credits in Western, both at 600 level or above); 9 credits in playwriting (excluding THEA 318); 3 credits in script analysis; 3 credits in contemporary dramatic literature or theater history; 6 credits in design/technical theater (including 3 credits in lighting design); 3 credits in acting or directing (Asian or Western); 3 credits in movement, dance, or music (Asian or Western); 3 credits in puppetry or youth theater; 3 credits of THEA 690 Graduate Theater Workshop in dramaturgy; electives may include an additional 3 credits of THEA 690 (in acting, design, directing, playwriting, stage managing, etc.); and 6 credits of THEA 695 Creative Project.

**Asian Performance**

For the concentration in Asian performance, students must complete 3 credits in research; 9 credits in Asian history/theory; 9 credits in Asian acting; 6 credits in Asian/multicultural directing; 3 credits in Asian/Pacific music and dance (minimum 1 credit in music and 1 credit in dance); 3 credits in design/technical theater or playwriting; 6 credits of additional creative/performance courses in above areas or courses at the graduate level in Western acting or directing; 6 credits of THEA 690 Graduate Theater Workshop (minimum 4 credits in Asian performance—acting, directing, or puppetry; 2 credits may include other courses in acting, design, directing, playwriting, stage managing, etc.; minimum 2 credits in faculty-directed and 2 credits in student-directed shows); and 6 credits of THEA 695 Creative Project.

**Theater for Young Audiences (TYA)**

For the concentration in TYA, students must complete 3 credits in research; 9 credits in Asian and/or Western history and/or theory; 3 credits in creative drama; 3 credits in youth theater; 3 credits in puppetry; 3 credits of THEA 779 Seminar in Youth Theater/Dance; 21 credits in creative drama, creative movement, design, directing, playwriting, puppetry, and/or youth theater, including 1 to 6 credits of THEA 690 Graduate Theater Workshop in acting, design, directing, playwrit-
ing, stage managing, etc.; minimum 3 credits in Asian theater (excluding THEA 690); and 6 credits of THEA 695 Creative Project.

Master’s Degrees in Dance

The department’s graduate offerings in dance include the MA Plan A, the MA Plan B, and the MFA. For admission to the master’s in dance program the GRE is not required; for foreign students the minimum TOEFL score is 600. The MA Plan A requires a written thesis. In Plan B, the candidate takes additional course work. A capstone project or paper is required. The MFA requires a creative performance and choreography thesis with accompanying written documentation and video.

Intended dance candidates for all degrees must present an adequate undergraduate background in dance or a related field and submit three letters of recommendation. MFA candidates in dance must also submit a DVD sample of their choreography and performance. MA and MFA candidates must submit a sample of written work, such as a major paper. The application deadline for the fall semester is February 1 (January 15 for foreign applicants). Spring semester application deadline is September 1 (August 1 for foreign applicants). Upon the successful completion of 12 graduate credit hours within the department, the elimination of any undergraduate deficiencies, and (for MFA students) the presentation of an acceptable example of creative work (the qualifying dance) the student may be admitted to candidacy.

The MA Plan A emphasizes research in dance ethnology. The MA Plan A (dance ethnology emphasis) requires a minimum of 36 credit hours, including DNCE 651, 652, 653, 654, 655, or 661 and 700 (6 credit hours); 3 credit hours in 400-level Asian or Pacific performance courses; related area electives (6 credit hours); dance electives (3 credit hours); and general electives (3 credit hours). All electives must relate to thesis research. Candidates must pass a reading or speaking proficiency exam in a foreign language relevant to their area of thesis research or must satisfactorily complete four semesters of a language relevant to their area of thesis research.

MA Plan B (dance education emphasis), requires a minimum of 36 credit hours, including DNCE 651, 652, 691, 693, and 659 or 699; 9 credit hours from 321, 331, 421, 431; 3 credit hours in 300- to 400-level Asian or Pacific dance courses; and 9 credit hours of electives (3 credits at the 600 level).

The MFA emphasizes performance and choreography. The MFA Plan A requires a minimum of 60 credit hours, including DNCE 421 or 431 (18 credit hours); DNCE 651, 652, 660, 661, 671, and 672 (4 credit hours); DNCE 679 (2 credit hours), 691, and 700 (6 credit hours); 2 credit hours in two different Asian or Pacific dance forms; 3 credit hours in 600-level dance electives; 6 credit hours in non-dance electives; and 1 credit hour in a general elective. MFA candidates must participate in two dance productions a year and register to attend a technique course each semester. Qualifying choreography on student concert is required prior to proposing the thesis.

MFA Plan A and MA Plan B require written comprehensive examinations and an oral defense of the examination. MA Plan A and MFA Plan A require an oral defense of the thesis.

Doctoral Degree

The Doctor of Philosophy degree given for scholarship in theater history, theory, or criticism, not creative or artistic work, is offered in three areas: (a) Western theater, (b) Asian theater, and (c) comparative Asian-Western theater. The PhD degree is not conferred for the acquisition of academic credits. It is granted only to candidates who demonstrate outstanding ability to do imaginative research and who present the results in a cogent dissertation.

A candidate for the degree is required to successfully complete three semesters of full-time residence, required courses (detailed below), other courses as deemed necessary by the student’s doctoral committee, examination in the research language(s) used in the student’s dissertation research, a written and oral comprehensive examination and an oral defense of the student’s dissertation. The minimum residence requirement is three semesters of full-time work or the equivalent in credits at UH Mānoa. At the end of the second semester in residence, the graduate faculty will provide the candidate with an assessment of his or her progress to date.

Required courses in the Western area are THEA 660, plus three other 600- to 700-level courses from a departmental list of approved courses; required courses in the Asian area are THEA 464, 465, and 466, as well as THEA 660 if the candidate’s dissertation requires field research. The curriculum of the comparative Asian-Western theater area is determined by the student’s doctoral committee. A high level of accomplishment in the foreign language or languages appropriate to the proposed area of research is required and will be determined by examination.

Proficiency in teaching, whether lecturing before large classes or teaching smaller classes and leading discussions, is considered part of the training of all PhD candidates, who should demonstrate this proficiency by giving several such lectures or by serving as teaching assistants.

Written comprehensive examinations and two hours of oral comprehensive examinations are required of all candidates before admission to candidacy. These are given after a student has completed the language requirement and before embarking on the dissertation. Written comprehensive exams shall consist of nine questions, one or more of which will specifically address the candidate’s major area of research and one or more of which may be of a special nature at the discretion of the candidate’s committee. The comprehensive includes questions on both Asian and Western drama and theater; further guidelines are available from the graduate advisor. The questions on...
the written portion are posed by the theater and dance graduate faculty and members of the student’s committee. The doctoral committee consists of at least five graduate faculty, of whom a majority are from the Department of Theatre and Dance and at least one from another department.

Applicants for admission to the program must submit a detailed statement of the dissertation research they propose, three letters from those acquainted with their academic work, a sample of their research (such as a seminar paper or a master’s thesis), and official GRE General Test scores. The application deadline for admission in the fall semester is February 1 (January 15 for foreign applicants). Spring semester application deadline is September 1 (August 1 for foreign applicants). Requirements include a broad background in the humanities, a master’s degree in theatre or its equivalent, and competence in dramatic production.

Candidates for the PhD who do not complete all requirements within seven years after admission into the doctoral program may be readmitted to candidacy only on the approval of the department’s doctoral faculty and the Graduate Division.

Urban and Regional Planning
College of Social Sciences
Saunders Hall 107
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-7381
Fax: (808) 956-6870
Email: idurp@hawaii.edu
Web: www.durp.hawaii.edu

Faculty
*D. Foley, PhD (Chair)—strategies of citizen participation, collaboration, nonprofit planning and management, community building, and community-based planning
*M. Coffman, PhD—environmental economics and planning, energy and climate change policy, resource management, general equilibrium modeling
A. Das, PhD—community participation and empowerment, slum upgrading, decentralization and local governance, role of civil society in development
&P. Das, PhD—urban development, basic environmental services and governance in South Asia, design and planning of the built environment
*M. Douglass, PhD—regional and rural development planning, urbanization and national development, international and local development in Pacific rim and Asia
&P. Flachsbart, PhD—planning methods and models, environmental planning, energy, land use planning, and urban transportation planning
*K. E. Kim, PhD—planning theory, planning methods, infrastructure planning, and alternative tourism planning
*R. Kwok, PhD—urbanization in China, East Asian development, spatial planning and urban design, development and regional economics
*L. Minerbi, Dott Arch, MUP—comparative urbanism, settlement planning, environmental planning, urban design, community development, planning with indigenous people, and Pacific Island planning
A. Rumbach, PhD—environmental planning, urbanization, and disaster risk in South Asia, vulnerability of low income communities to hydrologic hazards and climate change
*J. Spencer, PhD—political economy and regional development, urban labor markets, environmental management, community development, policy analysis, methods
*K. Umemoto, PhD—community planning, planning theory, social theory, social policy, community economic development, and race in ethnic relations

Cooperating Graduate Faculty
D. L. Callies, JD—land use management and control, intergovernmental relations
L. Cox, PhD—agricultural and resource economics
B. Hallet, PhD—congressional war powers, humanitarian intervention, terrorism
M. C. Jarman, PhD—environmental law, ocean law, legal writing
A. Kaufman, PhD—fundamentals of landscape design and planning design
M. McDonald, PhD—agricultural change, social theory, political geography, Japan
L. H. Nitz, PhD—public policy and political economics
D. Nixon, PhD—bureaucratic politics, statistical methodology, public policy
C. Papacostas, PhD—transportation engineering and design
K. Suryanara, PhD—political ecology, agriculture, rural development in Asia, environment and development, community-based resource management
B. Szuster, PhD—coastal land conservation, impact of human development activities
W. Wood, PhD—international public health planning
S. Yamada, PhD—disaster management and humanitarian assistance
W. H. R. Yeh, MArch—architectural and urban design

Affiliate Graduate Faculty
C. Anderson, PhD—hazard mitigation planning, disaster risk reduction and management
J. Fox, PhD—land use, forest resources and management, geographical information systems and spatial information technology, South and Southeast Asia
M. Hamnett, PhD—anthropology
J. Marra, PhD—customized coastal hazard Geographical Information Systems (GIS), coastal management
G. Marten, PhD—population dynamics, ecosystem ecology, animal behavior, statistics, mathematical modeling, population genetics, human ecology, environmental management
S. Saksena, PhD—human exposure assessment to air pollution, health impacts of energy use, air quality policy, public perceptions of environmental risks

Degree and Certificates Offered: MURP, PhD, Certificate in Planning Studies, Professional Certificate in Urban and Regional Planning and the Certificate in Planning Studies, Graduate Certificate in Disaster Management and Humanitarian Assistance
The Academic Program

Urban and regional planning (PLAN) is a dynamic field, that is still evolving. It emerged out of the convergence of two concerns: (1) the provision of urban infrastructure and (2) the initiation of social reform. While the underlying focus on community well-being continues, urban and regional planning today has broadened to include the development, implementation, and evaluation of a wide range of policies. Specifically, urban and regional planners, in both developing and developed countries, are concerned with the following:

1. The use of land in the city, in the suburbs, and in rural areas, particularly with the transition from one use to another;
2. The adverse impacts of human activities on the environment and the possible mitigation of those impacts;
3. The design of the city and the surrounding region so as to facilitate activities in which people need and want to engage;
4. The organization of settlement systems and the location of human activities in urban and regional space;
5. Identification of social needs and the design and provision of services and facilities to meet those needs;
6. The distribution of resources and of benefits and costs among people;
7. The anticipation of change and its impact on how people do and can live;
8. Participation of citizens in planning processes that affect their future; and
9. The way that choices are made, decisions implemented, and actions evaluated, and the means by which those processes can be improved in urban and regional areas.

The Department of Urban and Regional Planning takes a multidisciplinary approach to planning education, recognizing in particular the important contributions to planning that can be made by the social and natural sciences and by the architectural, public health, social work, and civil engineering professions; emphasizes extensive community involvement; engages in research that focuses on application of planning methodologies and implementation of planning endeavors; recognizes the close relationship between urban and regional planning and politics; acknowledges the difficulty of resolving the value differences that lie at the heart of most planning problems; and appreciates both the importance and the elusiveness of critical concepts, such as "the public interest,“ to urban and regional planning.

UH Mānoa Master of Urban and Regional Planning (MURP) graduates, of whom there are about 365, hold planning and related positions in a variety of public agencies, academic institutions, nonprofit organizations, and private firms in Hawai‘i, on the continental U.S., and in the Asia Pacific region.

Accreditation

The department is accredited by the Planning Accreditation Board.

Graduate Study

The department offers a multidisciplinary approach to planning education. Students are provided with an opportunity to develop an individualized but integrated course of study drawing on this department and other departments and professional schools in UH Mānoa. Faculty and students engage in both funded and non-funded research and community service.

The graduate curriculum focuses on theory, methodology, and practice in the following areas: community planning and social policy, environmental planning, urban and regional planning in Asia and the Pacific, and land use and infrastructure planning. Planning in the developing countries of Asia is emphasized.

For further information regarding the master’s degree or certificate programs, students should write to the department.

Master’s Degree

Students enter the MURP program from a variety of fields, usually the social sciences, architecture, engineering, public health, social work, and, increasingly, the natural sciences, but also from such diverse fields as philosophy, human development, and history. Students coming into the program are required to have an adequate background in descriptive and inferential statistics or to acquire this background prior to enrollment in PLAN 601.

Native speakers of English are required to take the GRE General Test. Others will be expected to have achieved adequate preparation in English as evaluated by the TOEFL. Each applicant should provide two letters of reference, preferably from individuals acquainted with the applicant academically or professionally. In addition, applicants must complete a self-assessment form and an express information form (available from the department). An interview with a member of the faculty, if feasible, is highly recommended. The deadline for application for admission is March 1 for the fall semester and September 1 for the spring semester.

Standards for a graduate with a MURP degree include the following:

1. Knowledge of the structure and the growth and transformation processes of human settlements;
2. Knowledge of planning theory, history, and ethics, including an understanding of the social and political nature of planning;
3. Knowledge of general methods and models appropriate to urban and regional planning, including methods appropriate to a chosen area of concentration;
4. Knowledge of planning information systems and computer applications in planning;
5. Ability to structure and evaluate alternative plans and strategies for resolving or mitigating planning problems;
6. Ability to communicate, especially in written and oral form; and
7. Ability to plan with, rather than for, clients.

MURP graduates hold a variety of planning and related positions in public agencies, nonprofit organizations, and private firms. In Hawai‘i, these include the state Department of Business, Economic Development and Tourism; the Department of Health; the Land Use Commission; the Legislative auditor; the Department of Hawaiian Home Lands; the House Majority Research Office; the Hawai‘i Community Development Authority; the Housing Finance and Development Corporation; the Department of Public Safety; the Department of Land and Natural Resources; the U.S. Department of Housing and Urban Development; the Honolulu City and County Departments of Planning and Permitting; Land Utilization, Housing and Community Development, and Parks and Recreation; the Office of the Managing Director; the Office of Council Services;
the Planning Departments of the counties of Hawai‘i, Kaua‘i, and Maui; the Mediation Center of the Pacific; banks and trust companies; consulting firms; development corporations; real estate firms; university research and extension organizations; and community colleges.

On the continental U.S., graduates are city and county planners, program analysts in federal agencies (e.g., Office of Ocean and Coastal Management and Office of Management and Budget), and planning consultants. Other graduates include a planner for a nonprofit housing corporation, a lawyer-planner, and a law professor. Overseas positions include planners with regional planning, housing redevelopment and environmental agencies, the United Nations, and private development and consulting firms, as well as faculty in university programs. Several MURP graduates are pursuing doctoral degrees in planning, geography, political science, and economics, while others are seeking law degrees.

Requirements

The MURP degree is a two-year professional program that requires a minimum of 42 credit hours. It is designed to equip students to fill professional planning and policy analysis roles in public agencies, private firms, and community groups, particularly in Hawai‘i, Asia, and the Pacific Basin. All students complete the core sequence (planning theory, planning methods, economic analysis for urban and regional planning, a 6-credit-hour practicum, and two of the following courses: PLAN 610, 620, 630, and 640). The remainder of the academic program, including a second methodology course, is individually designed with concentration in a specialized area of the student’s own choosing (with the consent of his or her advisor), provided adequate academic resources are available in the department and at UH Mānoa. Grades of B or better are required in PLAN 600, 601, 603, and 605, and an average of B or better must be earned in all courses counted toward the MURP degree. MURP students receiving a grade lower than a B will be allowed one additional opportunity to achieve a B or better in each core course.

Both Plan A (thesis) and Plan B (non-thesis) programs are available. All students are required to pass a final, which includes a successful defense of the thesis on the selected area of concentration, and to meet the program standards for graduation.

Doctoral Degree

The doctoral program provides training in advanced research in urban and regional planning. Graduates are expected to pursue academic appointments at institutions of higher education and to achieve higher levels of professional practice in the public and private sectors.

Admission Requirements

Admission to the PhD program requires a master’s degree in planning. In exceptional circumstances candidates with either an advanced research background or exceptional professional experience, but who do not have an MA degree may be admitted. Admission may be granted with the understanding that some background courses or examinations may be required. Consideration for admission requires a GPA of at least a 3.5 in previous graduate work. Applicants are also required to submit Graduate Record Examination (GRE) scores for verbal, math and analytic sections. Non-native speakers of English are also required to submit the TOEFL; a score of 600 is required. Applicants are also expected to submit evidence of advanced work such as a research report or sole-authored plan.

Degree Requirements

Each PhD degree student is required to complete at least fifteen credits in advanced courses (in addition to any remedial courses designated at the time of admission):
- Advanced Methods (3 credits)
- Advanced Seminar in Planning (3 credits)

In addition to these two courses, PhD candidates are required to take six credits in an allied field (to be selected in consultation with the student’s advisor). Students are also required to take one three-credit course in research design/proposal writing.

Prior to starting the dissertation, PhD candidates will sit for a comprehensive examination in planning theory and planning methods. Students will be required to form a PhD committee drawn primarily, although not exclusively from the department, to guide the student through the qualifying examination and the dissertation research. Under the direction of its chair, the committee will devise a qualifying examination covering both core topics in urban and regional planning and the student’s substantive area of research. Upon successful completion of the qualifying examination, students will be required to present their dissertation proposal, to a department colloquium. When the student has successfully completed the examinations and presented the dissertation proposal the student will advance to candidacy. Each student is required to conduct original research and write and present a defense of a doctoral dissertation based on the dissertation proposal. The dissertation research will be guided by the student’s committee. Upon completion, the student will defend the dissertation before the committee. If successful, the candidate will be recommended for award of the PhD in Urban and Regional Planning by UH Mānoa.

Professional Certificate in Urban and Regional Planning

The Professional Certificate in Urban and Regional Planning is designed for practicing planners eligible for graduate admission who are not able to attend school for the two years required to earn a MURP degree.

Professional certificate candidates specialize in one of the following four fields: community planning and social policy, environmental planning, land use and infrastructure planning, or urban and regional planning in Asia and the Pacific.

Professional certificate candidates are required to earn 18 credit hours including PLAN 600, 601, and 603, or 605. Each candidate selects a field of interest in which he or she takes two courses including PLAN 610, 620, 630, or 640. The specific courses are selected in consultation with the candidate’s faculty advisor.

Applicants for the professional certificate program should apply to the Graduate Division as special non-degree students. Two letters of reference should be sent to the department from people who are familiar with the applicant’s academic or professional record. Applicants must have earned a BA, BS, or a professional degree; have maintained a minimum GPA of 3.0 in the four semesters prior to admission; and have had at least three years of professional practice prior to admission.
Certificate in Planning Studies

The Certificate in Planning Studies allows students pursuing a master’s or doctoral degree in another area to become acquainted with planning skills and activities. Students enrolled in graduate programs in architecture, economics, engineering, geography, political science, public health, social work, and sociology are among those eligible. Students are encouraged to use the certificate program to increase their competence in planning as it relates to their major area of study.

Certificate students are required to take five courses offered by the department and complete the requirements for a master’s degree in their area of study. The required courses are PLAN 600, 601 or 605, and 751. The remaining two courses are to be selected from among the following courses by the certificate student in consultation with the faculty member responsible for directing the planning studies certificate program: PLAN 601 or 605 (whichever was not taken as a required method course); 602 or 603; and one of 610, 620, 630, or 640, or one elective course.

Successful completion of the program leads to a graduate degree in the student’s chosen field and a Certificate in Planning Studies. Consideration for admission to the certificate program requires filing of an application form available from the department.

Graduate Certificate in Disaster Management and Humanitarian Assistance (DMHA)

The University of Hawai‘i at Mānoa provides a logical location for an Asia Pacific disaster risk reduction research and institutional capacity-building program. The program responds to the compelling need to improve hazard and disaster mitigation and response in the face of increasingly frequent and severe disaster events. The Asia Pacific region suffers the greatest impact of disaster events worldwide, and Hawai‘i shares many of these same vulnerabilities. By interacting with hazard and disaster researchers at UH Mānoa and Hawai‘i’s existing dynamic community of disaster management organizations, students learn how to help build disaster resilient communities.

The Graduate Certificate Program in DMHA is housed in the Department of Urban and Regional Planning and is open to all graduate students. Our interdisciplinary students come from the physical and natural sciences, engineering, geography, public administration, social work, political science, and other disciplines. Some are pursuing professional degrees in law, medicine, architecture, or public health. Our students tend to be highly motivated to apply their respective disciplinary backgrounds to the problems of reducing the impacts of disaster on people and communities.

Graduate students are required to take at least three of the DMHA core courses for a base of nine units. An additional six units are selected with advisement from courses related to hazards and disaster management and response. A one unit capstone completes the requirement. Many departments offer courses which can complement the core course sequence in a coherent, rigorous and pedagogically valid way. Contact the Program Director or Program Coordinator for more information.

Women’s Studies

College of Social Sciences
722 Saunders Hall
2424 Maile Way
Honolulu, HI 96822
Tel: (808) 956-7464
Fax: (808) 956-9616
Web: www.womenstudies.hawaii.edu

Faculty

*M. Chesney-Lind, PhD (Director)—criminology, sociology of gender
*M. Das Gupta, PhD—feminist theory and methods, immigration, race relations in the U.S.
*K. Ferguson, PhD—feminist theory and methods, political theory
*S. Hippensteele, PhD, JD—psychology, law, civil rights, dispute resolution
*A. Kimura, PhD—feminist perspectives on science and technology, food, health and environmental issues
A. Saraswati, PhD—feminist media and new media studies, race, globalization, and cultural studies of emotion

Affiliate Faculty

H. Aikau—political science
B. Andaya—Asian Studies
B. Aquino—political science
C. Bacchilega—English
C. Browne—social work
J. Brunson—anthropology
V. Dalmiya—philosophy
L. Despain—English
P. Flowers—political science
R. Fong—social work
C. Franklin—English
M. Ghosh—librarian
J. Goldberg-Hiller—political science
N. Goodyear-Ka‘opua—political science
M. Hara—English
K. Heyer—political science
R. Hsu—English
K. Irwin—sociology
K. Kane—Center for Teaching Excellence
V. Kanuha—sociology
*M. Koikari, PhD—sociology, Asia-Pacific studies
V. Lanzona—history
N. Lewis—East-West Center and geography
L. Lyons—English
K. Phillips—English
S. Rai—Study Abroad Program
K. Reynolds—Japanese
M. Romaniello—history
L. Ruch—sociology
M. Sharma—Asian studies
N. Silva—political science
C. Sinavaiana—English
A. Sloat—nursing
P. Steinhoff—sociology
K. Takara—interdisciplinary studies

* Graduate Faculty
General and special women’s studies degree requirements are as follows:

**General Women’s Studies Degree Focus**
Students must complete thirty (30) credit hours of total coursework, with a grade of C (not C-) or better, including:
1. Feminist Theory (WS 439/POLS 339);
2. Feminist Methods and Research (WS 440);
3. At least three (3) courses from among the WS courses focusing on gender, race and ethnicity in transnational perspective;
4. A minimum of nine (9) total credit hours from 300 level WS courses (any 300 level course taken in #3 counts toward this total);
5. A minimum of nine (9) credit hours from 400 level WS courses (WS 439, 440, and any 400 level courses from #3 count toward this total);
6. Additional coursework as necessary to complete thirty (30) total hours of coursework.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Special Women’s Studies Degree Focus**
Students must complete thirty (30) credit hours of total coursework, including:
1. Feminist Theory (WS 439/POLS 339);
2. Feminist Methods and Research (WS 440);
3. At least three (3) courses from among the WS courses focusing on gender, race and ethnicity in transnational perspective;
4. A minimum of six (6) total credit hours from 300 level WS courses (any 300 level course taken in #3 counts toward this total);
5. Up to fifteen outside credits at 300 and 400 level, subject to approval by women’s studies’ advisor;
6. Additional coursework as necessary to complete thirty (30) total hours of coursework.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

**Advising**
Students who plan to pursue a women’s studies major should meet with the women’s studies undergraduate program advisor (currently Dr. Kathy Ferguson) for help in choosing classes, defining their area of interest, creating and developing proposals, and finding the faculty advisor most suited to their areas of interest.

**The Undergraduate Certificate**
The Certificate in Women’s Studies is designed to encourage all undergraduates to acquire a more thorough background in contemporary interdisciplinary scholarship in feminist and gender studies, and to incorporate feminist perspectives and issues into their major fields of specialization. Through this interdisciplinary option, students from various majors can study the specific achievements of women, examine the many factors that determine the status of women across cultures and through time, and analyze theories and assumptions about women that particularly relate to their majors.

The certificate’s practical value includes the enhancement of knowledge that develops students’ abilities to think critically and constructively about their world and their lives. Further, it
offers a credential that is applicable to a wide range of careers including medicine, law, business, education, counseling, and social work. The certificate can also provide the groundwork for advanced study of gender and feminism and the graduate level application of feminist theories.

All registered students in good academic standing who are working towards a baccalaureate degree other than Women’s Studies at UH Mānoa may apply for a Women’s Studies Certificate.

Requirements
- Students must complete 15 credits in Women’s Studies with a grade of C (not C-) or better.
- The 15 credits must include the following two requirements: a course in Feminist Theory (WS 439/POLS 339), and at least one course in gender, race, and ethnicity in transnational perspectives (list of courses available from the program).
- At least 9 credits must be at the 300 level or higher.

For administrative purposes, any cross-listed course will be counted as a women’s studies course regardless of the departmental designation under which students register for the course.

Graduate Study
Women’s studies offers a Graduate Certificate in Advanced Women’s Studies (AdWS Certificate). This certificate program provides a rigorous, integrated, and relevant educational experience for students whose education and career objectives will be enhanced through creative and scholarly transnational feminist analysis of women’s lives and visions. The program guides students to examine the factors that affect the status of women across cultures and through time, analyze theories and assumptions about women in various disciplines, contribute to the reformulation of social knowledge, explore institutionalizing social change that highlights and supports the achievements of women locally and internationally, and understand the usefulness of gender as an analytical tool in many fields.

Graduate studies leading to the AdWS Certificate are focused in four broad areas under the general rubric of gender studies.
- Feminist methods of inquiry and theoretical analyses. Students will explore sex/gender as an analytical category, asking what this category means, what purposes are served by the prevailing binary notions of gender, and how gender is constituted in past, current, and future biological, sociopolitical, cultural, and economic contexts.
- Feminist knowledge. Students will learn about the pervasive impact of gender relations on thoughts, actions, and prevailing constructions of reality. They will also become acquainted with an array of feminist theories and arguments about issues including coalition practices, nationalism and imperialism, and social policy.
- Sex/gender and sociopolitical categories of power and privilege. Students will examine the interaction of sex/gender with race/ethnicity, class, sexuality, and other vectors of power and privilege as relevant to nearly all domains of human experience. They will have opportunities to explore the dynamics of these interactions with emphasis on the evolving multicultural milieu of Hawai’i and the Asia/Pacific region.

Recipients of the AdWS Certificate must be classified graduate students, and normally will be pursuing graduate degrees in other academic departments. The AdWS Certificate will help students learn to apply feminist methodologies, analysis and problem-solving to their other academic fields, and to integrate the rigors of the scholarship on gender into their chosen professions as a means of enhancing their professional lives and opportunities for advancement.

The department website lists research interests and publications of the members of the women’s studies graduate faculty, and describes admissions and program requirements (see www.womenstudies.hawaii.edu). The following sections summarize the admissions and program requirements, but the program website should be consulted for complete details.

Admissions
Students are admitted to the AdWS Certificate program in the fall and spring semesters. Applicants to the AdWS Certificate program must be classified graduate students at UH Mānoa. Candidates are required to submit their current and complete transcripts, three letters of recommendation, and the names of and full contact information for three additional references. Applicants also must submit a 4-5 page essay outlining their personal and professional goals as they relate to the AdWS Certificate program, and identifying potential research and/or community involvement projects they may wish to pursue as part of their AdWS Certificate work.

Requirements
The AdWS Certificate program consists of a minimum of 18 credits, at least 12 of which must be at the 600 level or higher. Nine of these credits must come from the following four WS courses: WS 610 (1 cr), Faculty Seminar Series; WS 613 (3 cr), Feminist Research and Methods of Inquiry; WS 615 (3 cr), Feminist Theory; WS 650 (2 cr), Research in Feminist Studies: Capstone Experience.

Remaining credits will be drawn from a list of courses approved by the women’s studies graduate advisor (currently Dr. Ayu Saraswati). All students will work with a specific advisor to develop an AdWS Certificate curriculum based on their academic majors that best supports their academic and professional goals and objectives. Up to 6 credits towards the certificate may be taken in the student’s home department provided that department’s curriculum includes courses approved by women’s studies.

Each student enrolled in the AdWS Certificate program will design, develop, and complete a research and/or community involvement project to culminate in a publishable-quality work or comparable product, and a professional quality seminar presentation given in the student’s final semester of the program.
Zoology
College of Natural Sciences
Edmondson 152
2538 McCarthy Mall
Honolulu, HI 96822
Tel: (808) 956-8617 / (808) 956-7315
Fax: (808) 956-9812
Email: zoology@hawaii.edu
Web: www.hawaii.edu/zoology

Faculty
*C. Z. Womersley, PhD (Chair)—environmental physiology, biochemical adaptation, parasitology
*J. H. Bailey-Brock, PhD—invertebrate zoology, reef ecology, Polychaetes
*C. Birkeland, PhD—ecosystem biology, fisheries
M. Butler, PhD—evolution ecology, adaptive radiation, functional morphology, biomechanics
*D. Carlson, PhD—evolution population biology, invertebrate biology
*K. Cole, PhD—ichthyology, behavioral ecology, reef biology, morphology and morphogenesis, space biology
*S. Conant, PhD—ornithology, ecology, behavior, conservation biology
*H. G. de Couet, PhD—molecular genetics and cytoskeleton
*L. A. Freed, PhD—evolutionary and behavioral ecology, ornithology, conservation biology
*M. G. Hadfield, PhD—reproduction and development of invertebrates
C. Hunter, PhD—coral reef ecology
F. A. Reed, PhD—population genetics
*S. Robinow, PhD—neurogenetics
*A. D. Taylor, PhD—population, theoretical, and insect ecology
R. Thomson, PhD—evolutionary biology and phylogenetics
*T. Tricas, PhD—marine animal behavior
*L. Watling, PhD—impacts of humans on benthic environments; crustacean biology

Cooperating Graduate Faculty
W. W. L. Au, PhD—marine bioacoustics and echolocation
B. Bowen, PhD—molecular genetics of marine vertebrates
R. Cowie, PhD—evolutionary biology, biogeography, ecological genetics, snails, termites
D. Duffy, PhD—conservation biology, sea birds
R. Gates, PhD—molecular biology, developmental genetics, cell biology, physiology and ecology of corals
E. G. Grau, PhD—comparative endocrinology, environmental physiology
D. K. Hartline, PhD—quantitative neurophysiology and simulation of simple networks
K. N. Holland, PhD—physiology, behavior, ecology of aquatic organisms
T. D. Humphreys, PhD—cellular, molecular, biochemical, developmental biology in marine organisms
C. L. Hunter, PhD—conservation biology, coral reef ecology, biology and ecology of marine invertebrates
P. J. Jokiel, PhD—coral reef biology, biogeography and ecology
K. Y. Kaneshiro, PhD—systematics, evolution, insect behavior
S. A. Karl, PhD—molecular ecology, systematics, and phylogeography of marine animals

* Graduate Faculty

P. Lenz, PhD—neuroecology of zooplankton sensory systems
M. Q. Martindale, PhD—evolution of development
P. E. Nachtigall, PhD—behavior and sensory processes of marine mammals
R. Richmond, PhD—invertebrate zoology, conservation biology
E. Seaver, PhD—comparative developmental biology of marine annelids
F. I. Thomas, PhD—marine ecology, biology of larvae
R. Toonen, PhD—molecular genetics of marine organisms

Affiliate Graduate Faculty
R. Allison, PhD—systematics, biogeography and ecology

Degrees Offered: BA (including minor) in zoology, BS in zoology, MS in zoology, PhD in zoology

The Academic Program
The Department of Zoology at UH Mānoa offers undergraduate programs leading to bachelor of science and bachelor of arts degrees and a zoology minor, and graduate programs that offer master of science and PhD degrees. Of particular note is the department’s emphasis on tropical marine biology and evolutionary biology. There are few places in the U.S. where these emphases can be pursued more productively or in a more practical setting. Students can acquire a broad background for a career in marine biology. The BS degree is particularly suited for students preparing for graduate training in zoology and related fields and for those seeking immediate employment in zoology-related research and application markets, providing the broadest scientific background at the undergraduate level. Students preparing for pre-professional programs (premedical, pre-dental, pre-physical therapy, pre-veterinary medical) should consider the BA degree. It provides greater flexibility in pursuing the broad liberal arts education encouraged by professional schools. The courses applied toward the zoology major may then be selected with those programs in mind.

Undergraduate Study
Prospective majors should consult a departmental advisor.

BA Degree
Requirements

- BIOL 171/171L and 172/172L
- BIOL 265/265L
- BIOL 275/275L
- CHEM 161/161L and 162/162L
- CHEM 272/272L and 273
- BIOC 441 or BIOL 402 (cross-listed PEPS 402 or MBBE 402) (biochemistry lab not required)
- MATH 215 or 241, or equivalent college-level calculus

Students must take an additional 20 credit hours, including:

- ZOOL 490
- Three laboratory courses from the following areas:
  - Developmental (ZOOL 420/420L)
  - Physiology (ZOOL 430/430L, BIOL 407 or 408/408L)
  - Ecology and Behavior (ZOOL 306/306L, 439/439L, or 470/470L)
  - Genetics (BIOL 375/375L)
  - Morphology and Taxonomy (ZOOL 320/320L, 340/340L, 465/465L, or 475/475L; PEPS 363)
Non-laboratory courses applicable toward (20 credits):
- ZOOL 399, 499
- ZOOL courses numbered 300 and above

Zoology courses at the 200 level carry no major credit. MATH 216 or 242 and a year of college physics are strongly recommended for students planning graduate study.

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_zool.asp#ZOOL_SCHED.

BS Degree

Requirements
- Students must complete 78 to 82 credit hours, including:
  - BIOL 171/171L and 172/172L
  - BIOL 265/265L
  - BIOL 275/275L
  - BIOL 375/375L
  - CHEM 161/161L and 162/162L
  - CHEM 272/272L and 273
  - BIOC 441 or BIOL 402 (cross-listed PEPS 402 or MBBE 402) (labs not required)
  - PHYS 151/151L, 152/152L; or PHYS 170/170L, 272/272L
  - MATH 215 and 216, or 241 and 242 or 252A
  - ZOOL 320/320L, or 475/475L, or PEPS 363
  - ZOOL 430/430L
  - ZOOL 490
  - ZOOL 492 (1 credit hour)
  - ZOOL 499 (Minimum of 4 credit hours)

- Nine credits of zoology electives (300 level or above in ZOOL or approved BIOL courses), 6 credits in science electives (300 level or above in approved courses in natural sciences).

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/. For more information on the major, go to www.advising.hawaii.edu/artsci/pages/resources/lib_art_degrees/majorskills/majorskills_zool.asp#ZOOL_SCHED.

Minor

Requirements
- (At least 15 credits from the following courses, including 2 lab courses from 2 of the following 5 areas)
  I. Development
    - ZOOL 420/420L
  II. Genetics
    - BIOL 375/375L
  III. Physiology
    - BIOL 275/275L
    - BIOL 407
    - ZOOL 430/430L
    - ZOOL 432
  IV. Ecology and Behavior
    - BIOL 265/265L
    - ZOOL 200/200L
    - ZOOL 306/306L
    - ZOOL 439/439L
    - ZOOL 470/470L

V. Morphology and Taxonomy
- ZOOL 303/303L
- ZOOL 340/340L
- ZOOL 465/465L
- ZOOL 475/475L

Other Courses Applicable Toward Minor in Zoology
- BIOL 408
- Any ZOOL courses numbered 300 and above

For information on a Bachelor Degree Program Sheet, go to www.manoa.hawaii.edu/ovcaa/programsheets/.

Graduate Study

The department offers programs of graduate study and research leading to the MS and PhD degrees. The major strengths of the graduate program in zoology are in the areas of animal behavior; cellular, molecular, and developmental biology; and evolution and ecology. Especially strong programs have developed in areas that utilize the resources of Hawai’i’s unique island setting, including developmental biology, marine biology, and ecology, evolution and conservation biology. Much of the research in the department emphasizes the animals of Hawai’i: marine invertebrates, terrestrial arthropods, fishes, and birds.

Graduate students in zoology may join three interdisciplinary graduate specializations: the Cellular and Molecular Biology (CMB); the Ecology, Evolution, and Conservation Biology (EECB) Program; and the Marine Biology (MB) Program. The department also hosts the Hawai’i Cooperative Fishery Research Unit and has active affiliations with the Hawai’i Institute of Marine Biology, the Kewalo Marine Laboratory, the Békésy Laboratory of Neurobiology, and the Center for Conservation Research and Training.

Recipients of the MS degree usually teach, pursue careers in research or government service, or pursue further graduate training. Those with the PhD ordinarily seek teaching positions in colleges and universities or research careers in university, government, or private laboratories.

A brochure listing research interests and publications of the members of the zoology graduate faculty, as well as summarizing admissions and program requirements and opportunities for financial aid, is available on request from the department; a separate graduate student handbook describes the details of program requirements and procedures. This information also is available on the Web at www.hawaii.edu/zoology. The following sections summarize the admissions and program requirements, but the department brochure and handbook should be consulted for complete details.

Admissions

Students are admitted to the graduate program only in the fall semester; the application deadline is January 15. Applicants must submit a completed graduate application form, the official record of performance on the GRE General Test, transcripts for all previous undergraduate and graduate studies; and letters of recommendation from three persons who can appraise the student’s aptitude for graduate study. It is strongly recommended that students take the GRE Biology subject test, and include an official record of performance in their applications. An applicant also must be sponsored by a member of the graduate faculty who has indicated his or her willingness to advise the student; the ap-

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plicant should communicate with prospective faculty sponsors well in advance of the application deadline.

Intended candidates for the MS or PhD degrees in zoology are expected to present a minimum of 18 credit hours of undergraduate course work in zoology and/or biology and to have completed at least three semesters of chemistry (inorganic and organic), one year of physics, and at least one course each in calculus and botany. Deficiencies in undergraduate preparation must be rectified within the first 2 years, without graduate credit, except that biochemistry or molecular biology may be taken for graduate credit if it is at the 400-700 level. A course in biochemistry or molecular biology is required of all students, but it may be taken for graduate credit.

**General Requirements**

To ensure that students have broad competence in zoology, they must take a written diagnostic examination at the start of their first semester. This examination seeks evidence of competence at the level of the undergraduate major (for MS students) or the master’s degree (for PhD students) in the areas of molecular-cellular, organismic, and suprastructure zoology. Students scoring at the 90th percentile or higher on any of these sections of the GRE biology test are exempted from the corresponding section of the diagnostic exam. Students who do not perform satisfactorily on the diagnostic examination will be required to take remedial course work, which must be completed within two years.

All entering students are required to take ZOOL 691C. All graduate students are required to take at least one graduate seminar or topics course each year.

**Master’s Degrees**

Thesis (Plan A) and non-thesis (Plan B) programs leading to the MS degree in zoology are available. In addition to the thesis, Plan A requires a minimum of 24 credit hours of course work and 6 credit hours of ZOOL 700 (thesis). The 24 credit hours must include at least 12 credit hours of 600- or higher-level course work. The 24 credit hours may include up to 6 credit hours from related departments and up to 2 credit hours of ZOOL 699.

Plan B is a non-thesis program and requires a minimum of 30 credit hours in 400- through 700-level courses. The 30 credit hours must include at least 6 but not more than 16 credit hours from related departments (excluding courses cross-listed in zoology or applicable to the zoology BA degree) at least 2 but not more than 5 credit hours of ZOOL 699, and at least 18 credit hours of 600 or higher level course work. A research paper based on original scientific work is required.

**Doctoral Degree**

Many applicants to the PhD program will have completed a master’s degree, but well-qualified applicants without a master’s degree may be admitted directly into the PhD program. Students currently enrolled in the master’s program also may apply for admission into the PhD program without completing the master’s degree.

**Course Requirements**

For students matriculating with a master’s degree in zoology (or equivalent), there are no course requirements for the PhD degree other than the general requirements (ZOOL 691C in the first year, and at least one graduate seminar or topics course each year), and any courses required by the student’s dissertation committee.

For students matriculating with a bachelor’s degree, general course requirements are very similar to the requirements for students receiving a Plan A master’s degree. A minimum of 24 credits are required in courses numbered 400-800. Additionally, 6 credits are required of ZOOL 800 (dissertation), for a total of 30 credit hours. Students are required to enroll in ZOOL 800 during the term in which their degree will be conferred. At least 12 of the 24 credits of required coursework should be in 600-700 level courses, not counting ZOOL 699. The Department of Zoology requires that 1 of the 24 coursework credits include ZOOL 691C. Of the 24 required credit hours, student may include a maximum of 2 credit hours from ZOOL 699, and up to 6 of the 24 credits are allowed from courses in related departments. All courses cross-listed with zoology, and all biology courses which can be counted towards a zoology BA or BS, are considered zoology courses, not courses in a related department.

**Other Requirements**

An oral comprehensive examination must be passed within one year of admission to candidacy; this examination will emphasize the student’s research area but may cover any facet of zoology.

The research project culminating in the dissertation is the most important part of the PhD degree program. The dissertation is to be an original contribution based on independent research, carried out under the guidance of the advisor and dissertation committee. The completed dissertation is defended at a public final examination, conducted by the dissertation committee and including a public research seminar by the candidate.

**Further Information**

Further information about the graduate program in zoology, including full details of admissions and program requirements, may be obtained from the department or at www.hawaii.edu/zoology. Other inquiries may be sent to zoology@hawaii.edu.