



UNIVERSITY
OF HAWAI'I
HILO

**1997-1998
GENERAL CATALOG**

Prospective students should address inquiries to:

University of Hawai'i at Hilo

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This catalog is available on audio cassette upon request.
Please contact the Student Support Services Office at (808) 974-7616.

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GENERAL INFORMATION

The Community

The University of Hawai'i at Hilo began as a branch of the University of Hawai'i at Manoa in 1947 and underwent a number of name changes prior to being organized in 1970 under its present name. UH Hilo is a part of Hawai'i's ten campus system of higher education. Located in Hilo, it incorporates a four-year College of Arts and Sciences and a four-year College of Agriculture. In fall 1996, the University of Hawai'i at Hilo enrolled 2,723 students.

From 1970 through 1990, the University of Hawai'i at Hilo also included Hawai'i Community College among the academic programs. Effective with the 1991 academic year, Hawai'i Community College became a separate entity although it continues to share faculty offices, classrooms and many facilities and services.

The Chancellor is the chief executive officer for the campus and is responsible to the President who heads the statewide system. A Board of Regents, appointed by the Governor, is the governing body of the University of Hawai'i system.

The University of Hawai'i at Hilo is situated on the island of Hawai'i, the largest in the Hawaiian Archipelago. With an area of 4,060 square miles, it has more land than all the other Hawaiian islands combined. With its great variety of physical features, including peaks that are snowcapped in winter, pasture lands, sugarcane fields, active volcanoes, and rain-swept valleys, the "Big Island" of Hawai'i has been described as a tropical mini-continent. Located in the Pacific Ocean, Hawai'i Island is almost 2,500 miles from the mainland U.S.A. Its marine environment, geological diversity and cultural richness are valuable and well utilized educational resources by the faculty and administration.

The island's economy is centered largely on agriculture and tourism. Hilo, which has a major harbor and airport, is a peaceful city with a population of 45,000. It is located 200 air miles from Honolulu, Hawai'i's state capital.

The mailing address for all units is: University of Hawai'i at Hilo, 200 W. Kawili Street, Hilo, Hawai'i 96720-4091. The University main exchange is: (808) 974-7311, FAX (808) 974-7622.

Philosophy

The educational philosophy of the University of Hawai'i at Hilo, broadly stated, is that the development of the human potential to the fullest extent possible is central to the very existence of the University. Through an intellectually stimulating environment, the advancement of knowledge, learning, and skill development, the student is prepared for a meaningful place in society.

Philosophically, the University is a haven for creative thinking, a depository of intellectual resources, and a catalyst for developing a curiosity for learning. Collectively, the University holds this sacred. In turn, each college assumes a specific role in the implementation of the institutional philosophy through its respective programs.

Mission

The University of Hawai'i at Hilo is a growing post-secondary educational institution designed to provide students with a range of diverse high-quality learning experiences and opportunities. The University is dedicated first and foremost to excellence in education. The major goal of the institution for the coming five to six years

is to become the State of Hawai'i's primary residential campus featuring a liberal arts focus in all its degree programs. The University of Hawai'i at Hilo takes as its primary clientele the people of the State of Hawai'i, with peoples from Pacific Rim and Pacific Island nations a secondary, although desirable and important, clientele. The major focus will be upon liberal arts undergraduate education and a select group of high quality professional programs. In addition, the university will strive to establish a small set of Master's Degree programs with the ultimate goal of operating independent Master's level graduate programs.

The University of Hawai'i at Hilo is committed to a general admissions policy which is consistent with offering quality programs in the liberal arts and professions. The faculty reserve the right to impose additional admissions standards and criteria on individual programs. In recognition and appreciation of the cultural and educational differences of its students, the University is committed to providing services and programs that meet the educational needs and skills of all its students. In addition, the University is committed to building upon this diversity by creating an educational atmosphere wherein flexibility and an ability and willingness to adapt to change successfully are central aspects of the academic, research, and service functions of the University.

High quality education is the single most important priority at the University of Hawai'i at Hilo. By the phrase "high quality education," the University intends to be primarily concerned with, and willing to devote the greatest amount of time and resources to, the learning process and the attainment of measurable learning outcomes. This priority includes effective teaching both within the classroom and in the community at large. In making this commitment to high quality education, the University acknowledges that such quality is predicated upon scholarly inquiry, professional development, and a comprehensive program of assessment.

The University of Hawai'i at Hilo serves as an important knowledge and skills resource center for the State of Hawai'i and the Pacific region. It is understood here that the University has an obligation to assume a leadership role in matters where it possesses expertise and the resources necessary to assume such a role. It is further understood that the University has an obligation to integrate effectively knowledge, skills, and techniques from disciplines in the humanities, natural sciences, social sciences, and professions.

Accreditation

The University of Hawai'i at Hilo is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges. Education program majors are accredited by the National Association of State Directors of Teacher Education Certification. The nursing program is accredited by the Hawai'i State Board of Nursing. Students may transfer credits to other American or foreign universities on the same basis as course credits are transferred by other accredited American universities. Documents relating to the accreditation of the University of Hawai'i at Hilo are available to the public at the Edwin H. Mo'okini Library.

Facilities

The campus of the University of Hawai'i at Hilo consists of a 115-acre campus, an adjoining 163-acre University Park, and a 110-acre University Agricultural Farm Laboratory located in Pana'ewa Agricultural Park. To serve the needs of the University, there are 55 major buildings and 32 portables, including classroom buildings, special facilities for student laboratories, a library and media center, faculty office buildings, administration building, student services building, a fully-equipped Theatre complex, a campus center for student activities, an athletic complex, tennis courts, and playing field.

Degrees Offered

College of Agriculture

	BS	Minor
Agriculture	*	*

College of Arts and Sciences

	BA	BBA	BS	Minor
Anthropology	*			*
Art	*			*
Biology	*		*	*
Business Administration		*		*
Chemistry	*			*
Computer Science			*	*
Earth and Space Science				*
Economics	*			*
English	*			*
Geography	*			*
Geology			*	*
Hawaiian Studies	*			*
History	*			*
Japanese Studies	*			*
Liberal Studies	*			
Linguistics	*			*
Marine Science	*			*
Mathematics	*			*
Music	*			*
Natural Science	*			
Nursing			*	
Philosophy	*			*
Physics	*			*
Political Science	*			*
Psychology	*			
Sociology	*			*
Speech	*			*

College of Agriculture

The College of Agriculture opened its doors in the fall of 1975. The main objective of the college is to prepare students for a broad and full understanding of basic factors involved in production, management, processing, distribution, marketing, sales, and services in the field of agriculture, including aquaculture. While the college stresses hands-on production techniques and basic management programs, it also requires a core of basic science courses, as well as courses in general education. The College of Agriculture emphasizes small classes, a low student-faculty ratio, and excellence in teaching.

College of Arts and Sciences

Established in 1947 as the Hilo Campus, with an enrollment of 46 students and using makeshift facilities, the campus functioned as an extension division of the College of General Studies of the University of Hawai'i. Until 1954, the campus had only three full-time faculty members.

In 1955, with an enrollment of 155 students, the Hilo Campus entered into a second stage of development. It moved to the present 110-acre site, and took occupancy of the first building specifically designed for its use. The mission of the college during its second phase was to offer a two-year program with a concentration in the arts and sciences, and introductory courses in education, business administration, and engineering.

In 1969, the Board of Regents of the University of Hawai'i authorized transformation of the satellite campus in Hilo into a four-year college. A third year of studies was added to the curriculum in 1969, and a fourth in 1970, when the institution's name was changed from the Hilo Campus to Hilo College. In 1979, Hilo College was renamed the College of Arts and Sciences.

By the fall of 1996, the College of Arts and Sciences had grown to a faculty of about 145 serving approximately 2,650 students. The college is designed to offer a residential undergraduate experience emphasizing small classes and excellence in teaching.

In August 1996, the Board of Regents of the University of Hawai'i authorized the first master's degree at Hilo. This initial degree is a master's in Hawaiian Language and Literature.

Other Programs

Activities including credit, non-credit, professional and personal development courses, extended degree programs, public lectures, seminars, conferences and workshops, cultural exhibits and performances, community development projects, and travel study and international programs are also offered through the University.

The Faculty

The faculty of the various colleges of the University of Hawai'i at Hilo are highly qualified and recognized experts in their disciplines and they all hold advanced degrees in their respective areas, are committed to quality education as a priority, placing a special emphasis on teaching and student-teacher interaction.

The faculty utilize the diverse natural, physical, cultural and economic resources of Hawai'i Island as a laboratory on the leading edge of many scientific, cultural, social and environmental issues. Hands-on experience as part of the learning process is an integral part of the curriculum in most discipline areas. The faculty deliver "quality learning with Aloha" in a personal, supportive and scholarly environment.

Learning Resources

The University of Hawai'i at Hilo's library and computer resources support the academic activities of students and faculty members.

Library—The Edwin H. Mookini Library, completed in 1981, is located in the heart of the campus.

Available to students are 240,000 bound volumes and 1,200 current periodicals from Hawai'i, the U.S. mainland, Asia and Europe. Special formats collected include films, audio and video cassettes, slides, compact disks and microforms. In addition, the library is a depository for both United States and Hawai'i State documents.

and currently holds more than 350,000 U.S. documents. The Special Collections room houses the library's extensive Hawaiiana holdings. To ensure student proficiency in use of these collections, the staff offers a comprehensive program of library instruction.

Library materials aside, the UH Hilo library provides other services and facilities that further the academic mission of the University. The Graphics Department supports instruction with graphics and reprography work. The Media Center also operates audio and television studios and provides technical support for the Hilo activities of the University of Hawai'i interactive television system. Other facilities in the library include ample audio visual playback equipment, computer terminals connecting to University computers, and microcomputers set up for word processing and other applications. Students may also confer in the library's group study rooms located throughout the building.

Computer technology is increasingly used to meet the information needs of the University community. The library's computerized catalog uses the versatile CARL system. Through CARL, students and faculty locate materials not only in the UH Hilo collections, but also in libraries throughout Hawai'i and the U.S. mainland. The library's reference service is enhanced by CD-ROM indexes as well as hundreds of online databases. Cataloging and interlibrary loan of materials take place through the Online Computer Library Center, a 21,000-library network providing the University community with ready access to materials from the University of Hawai'i at Manoa and other cooperating institutions.

Computing Center—Academic computer facilities consist of a SPARC Center 2000 running UNIX (SOLARIS), two SPARC Server 690s running UNIX, and an IBM ES-9000 computer system running CMS, TSO and MVS. These systems, located on the Manoa campus, support data processing courses, statistical computations, faculty and student research and instructional course work. The Computer Science department also operates and maintains a Micro-VAX II computer running ULTRIX.

There are terminals and PCs located in the library which can remotely access the computers at the UH Manoa Computing Center. Additionally, there are PCs and terminals at various departmental labs on campus that can access both local and remote computing resources through a Gandalf PACX data switch or through the local ethernet network.

Center for Gifted and Talented Native Hawaiian Children (Na Pua No'eau)

The Center for Gifted and Talented Native Hawaiian Children is an effort on the part of UH Hilo to extend its educational resources to students in Kindergarten to 12th grade. It is consistent with UH Hilo's master plan to develop partnerships with the public schools to increase participation of native Hawaiian students in higher education.

The goal of the Center is to increase opportunities for native Hawaiian children to participate in educational enrichment activities. The Center incorporates a learning model into its programs that enhance the learning of the Hawaiian students. The programs are designed to enhance talent in all areas of giftedness.

The Center conducts: research, direct services to students (Kindergarten to 12th grade), teacher development, and parent workshops. Programs conducted by the Center, which serves approximately 2,000 students annually, include: Summer Residential Program, Summer Youth Program, Super Enrichment Saturdays, Children's Chorus, High School Gifted Project, Elementary Schools Projects, a Family Fair, and year-round Talent Enrichment Programs for selected students. Outreach centers are located at Maui Community College, Kauai Community College, and UH Manoa.

Women's Center

The UH Hilo Women's Center opened in 1990 to address women's concerns on campus and in the community. The Women's Center is committed to working toward the empowerment of women, encouraging women to take full control of their lives, working to end all forms of oppression, and to strengthen bonds among all women. Services include crisis counseling, peer support, information and referral to UH Hilo and community resources, and support groups. The Center also coordinates and sponsors a wide variety of presentations (lectures, poetry readings, workshops, films) designed to increase awareness of issues relating to women and/or to promote women as leaders and role models. In addition, the Center houses a resource lending library (books and videotapes) available for use by students, faculty, staff and community members.

For more information, contact the Women's Center at (808) 974-7306 or visit the Center located in Room 312 of the Campus Center.

Hale Kuamo'o Hawaiian Language Center

In recognition of its leadership in the teaching and use of the Hawaiian language, an official language along with English in the state of Hawai'i, UH Hilo receives legislative support to provide services to the state in the area of Hawaiian language. The vehicle for this support is the Hale Kuamo'o Center for Hawaiian Language and Culture through the Medium of Hawaiian, a center affiliated with the Hawaiian Studies Department in the Humanities Division of the College of Arts and Sciences.

The Hale Kuamo'o and UH Hilo Hawaiian Studies program are internationally known as the most developed university effort in a Native American language in the United States. Hale Kuamo'o maintains contact with related programs to strengthen Hawaiian language and culture study in Hawai'i.

The primary focus of the Hale Kuamo'o is the development of instructional materials and teachers for the state's public schools taught through the medium of Hawaiian. Original and translated texts produced by the Hale Kuamo'o are used in the state's Hawaiian Language Immersion Program, the first language immersion program in a Native American language in the United States. Teacher training occurs year round.

Hawai'i Small Business Development Center (SBDC)

UH Hilo has been designated as the lead center for the Hawai'i Small Business Development Center (SBDC). SBDCs draw from resources of local, state, and federal government programs, the private sector, and university facilities to provide managerial and technical help, research studies, and other types of specialized assistance of value to small business. These centers, which are generally located or headquartered on a campus, provide practical training for small business owners.

SBDCs are part of a business development program of the U.S. Small Business Administration (SBA). Although SBDCs operate under the general management and oversight of the SBA, the SBDC is jointly funded by the State of Hawai'i and the SBA. There is, in fact, a partnership between the State of Hawai'i and the SBA for delivery of assistance to the small business community within the state.

The Hawai'i SBDC began operation in January 1990 with the State Director's Office and the Big Island Center. A network of centers on the other islands include centers at Kaua'i Community College, Maui Community College, and O'ahu.

Basic business assistance services are available to small business clients throughout the SBDC network under the direction and

administration of the Hawai'i SBDC State Director. Individual consultation is provided without charge to small businesses. Services include business skills assessment, local, national and international market development, economic and business data analysis, financial analysis, assistance with process and facility design, technology transfer, planning and loan packaging, and business law referral. Training and educational programs are also provided.

For further information on the Hawai'i SBDC, contact Darryl Mleynek, State Director, at (808) 974-7515.

The Kalakaua Marine Education Center (KMEC)

The Kalakaua Marine Education Center supervises and coordinates the activities of the diverse marine programs at the University of Hawai'i at Hilo including the baccalaureate degree program in Marine Science, the Marine Science Summer Program, the QUEST field training course and the UH Hilo Marine Option Program. KMEC's programs are designed to take full advantage of the Big Island of Hawai'i's variety of marine environments ranging from deep ocean to coral reef to estuarine, and emphasize a hands-on approach to education.

Baccalaureate Degree Program in Marine Science

The baccalaureate degree program in Marine Science consists of a BA degree plus two specialized minor programs of study. Details on these programs are listed under "Marine Science" in the College of Arts and Science courses section of this catalog.

Marine Science Summer Program

The UH Hilo Marine Science Summer Program (MSSP) has received the Excellence of Program Award from the Western Association of Summer Session Administrators which represent some 80 colleges and universities in the western United States, Canada, and Mexico. The goals of the successful MSSP are to actively involve students in the educational process by melding hands-on education with traditional classroom techniques, and to provide students with extensive personal attention. The MSSP provides several introductory level courses like oceanography, marine biology, and the Hawai'i marine field experience. Upper division courses are offered in advanced oceanography, advanced oceanography laboratory, and tropical marine research investigations. These courses provide the more advanced student with a challenging curriculum in oceanography and the opportunity to conduct original research projects under the guidance of a faculty member. Finally, the MSSP provides students with organized marine-related recreational activities like sailing, kayaking, and deep-sea fishing.

QUEST - Quantitative Underwater Ecological Surveying Techniques

QUEST is a course designed to teach undergraduates underwater ecological surveying methodologies, to train them how to design, implement, and analyze a research project, and to teach them how to identify common seaweeds, corals, invertebrates and fishes residing on Hawaiian reefs. It is a unique two-week long, full-time course in which faculty, staff, and students from the entire University system come together on the Hilo campus. After several days of classroom lecture and orientation, five days are spent surveying the coral reefs off Puako, Hawai'i, using scuba. Following the field survey, students return to the Hilo campus to analyze data and prepare written and oral reports.

Marine Option Program (MOP)

Please see MOP program description under College of Arts and Sciences, Special Programs.

KMEC Facilities

At present, KMEC operates two Laser and three Flying Junior sailboats and a 27-foot yacht for training in sailing and seamanship through MOP. An 18-foot Larson motorboat is currently used as a nearshore research vessel and is capable of deploying current meters, drogues, sediment coring apparatus and plankton tows. Inflatables are available for use in scuba diving operations.

The Center maintains an inventory of scuba equipment for research diver training. Underwater video systems and an editing station are available for use by students in MOP, and an in-house computer graphics facility assists students in giving state-of-the-art presentations on their research projects. Scanning and transmission electron microscopes are also available for undergraduate students use through the Biology and Marine Science degree programs.

For additional information, contact: Director, Kalakaua Marine Education Center, 200 W. Kawili Street, Hilo, HI 96720-4091; (808) 974-7383.

Social Sciences Training and Research Laboratory (SSTRL)

The Social Sciences Training and Research Laboratory is an interdisciplinary training and service facility of the Social Sciences Division of the College of Arts and Sciences. Located in PB14-1, the SSTRL is a micro-computer based facility that provides quantitative research services and training resources for the University and Hawai'i island community.

Service. The SSTRL provides data processing and other research related services to students, faculty, staff and residents of the island. In addition, the SSTRL provides open access time to individuals needing to use micro-computers. Other services include workshops on how to use the computers in the SSTRL and instruction in various quantitative research software. The Lab also provides text formatting and other services related to the production of manuscripts for publication.

Research. The SSTRL provides assistance for research projects being conducted by faculty, staff, students, public/private agencies and individuals. Consulting and contracted services cover the entire research process from the writing of grant proposals to the preparation of final reports. Among the specific services are assistance with sampling, questionnaire design, data entry and statistical analysis. Contracted research services constitute a large portion of the SSTRL's service to the Hawai'i island community.

Teaching. The fourteen 286-12 PCs in the lab with statistical and word processing software make the SSTRL a natural location for certain classes and course work. Statistics and Methods classes in geography, psychology and sociology are conducted in the SSTRL, as well as classes from outside the Social Sciences Division (e.g. business and mathematics). In addition, many student research projects utilize the SSTRL resources for directed readings and research credits. Data sets such as the General Social Survey and others collected in SSTRL projects are available for use. The applied methodology experience gained in the SSTRL is a major advantage for students planning professional careers and seeking entry into graduate programs, the human services and public policy careers.

For further information or inquiries into the services available through the SSTRL, please contact Dr. Alton M. Okinaka, Director, at (808) 974-7370.

Writing Intensive Program

UH Hilo's Writing Intensive Program is part of a systemwide movement to incorporate more writing in courses from all disciplines. A "WI" course is a discipline-specific content course in which

writing plays a major, integrated role. Students can enroll in course sections designated as “WI” to gain greater understanding of course content through writing, and learn how to write in ways appropriate to that discipline.

The hallmarks of a writing intensive course are:

1. Writing promotes learning of course materials.
2. Writing is considered to be a process in which multiple drafts are encouraged.
3. Writing contributes significantly to each student’s course grade.
4. Students do a substantial amount of writing. Depending on course content and the types of writing appropriate to the discipline, students may write critical essays or reviews, journals, lab reports, research reports or reaction papers.
5. To allow for meaningful professor-student interaction on each student’s writing, the class is restricted to 20 students.

For further information, contact the Humanities Division, (808) 974-7479. Refer to specific degree requirement section of this catalog.

UH Hilo Writing Center

The UH Hilo Writing Center provides assistance to students on academic writing assignments. Under the supervision of an English faculty person, tutors help students to work on critical thinking skills, discover and develop topics, generate information to support ideas, organize information, refine the style of a paper, and edit their own papers. Tutors can also review a previously graded assignment to help students improve future performance.

Instructors in all disciplines are invited to refer students to the Writing Center for help with specific writing skills.

The Writing Center, located in the Library’s PC Lab, is open during Spring and Fall semesters. Questions about the Center can be directed to the Writing Center Coordinator, (808) 974-7479.

Freshman Orientation

Welcome and Orientation: Orientation week provides each new freshman and transfer student with opportunities to learn more about the campus, the Big Island and the Hilo community.

Advisement: Selected academic advisors and trained peer advisors work together to assist new students with course selection and registration during the orientation week. Continuing advisement support and guidance is provided by the faculty advisors and the Advisement Center.

For more information, contact the CAS Dean’s Office.

Nondiscrimination, Equal Opportunity/Affirmative Action

The University of Hawai‘i is an equal opportunity/affirmative action institution. It is committed to a policy of nondiscrimination on the basis of race, sex, age, religion, color, national origin, ancestry, disability, marital status, arrest and court record, sexual orientation, or status as a disabled veteran or veteran of the Vietnam era. The policy covers academic consideration such as admission and access to, participation and treatment in, the University’s programs and activities. With regard to employment, the University is committed to equal opportunity in all personnel actions such as recruitment, hiring, promotion, and compensation.

The University strives to promote full realization of equal opportunity through a positive, continuing affirmative action program in compliance with federal Executive Order 11246. The program includes measuring performance against specific annual goals, monitoring progress, and reporting on good faith efforts and results in annual affirmative action plan reports. As a government contractor, the University is committed to an affirmative policy of hiring and advancing in employment qualified persons with disabilities, disabled veterans, and veterans of the Vietnam era.

The University is committed to equal opportunity in all personnel actions including recruitment, hiring, promotion and compensation. The University strives to promote full realization of equal employment in compliance with the affirmative action mandates of federal Executive Order 11246.

Grievance procedures have been established in order that persons believing that they have been discriminated against or unfairly treated by the University or a member of the campus community may seek a resolution of their dispute. Information regarding these procedures may be examined in the offices of the Dean of the College of Agriculture, Dean of the College of Arts and Sciences, and Student Services. Offices designated to coordinate the University’s nondiscrimination and affirmative action programs are:

OFFICE OF STUDENT SERVICES
(Students Civil Rights)
(808) 974-7334

COORDINATOR EQUAL OPPORTUNITY/
AFFIRMATIVE ACTION
(Employees)
Kerwin Iwamoto
(808) 974-7449

Interim Policy for Responsible Computing and Network Access

This policy applies to all computing, information and network resources administered by the University of Hawai‘i Information Technology Services Division. It is posted in all University computer labs and is available at the Reference Desk in the Library.

Campus Parking

To park a vehicle on the Main Campus requires a University Parking Permit during the Fall and Spring semesters. Parking applications are available at the UH Hilo Security/Parking Office, Auxiliary Services Building #300, room 101. Parking permits are sold by the semester and/or academic year on a first come, first served basis with proof of class registration (copy of fee slip) or current validated student identification card.

Sexual Harassment and Assault

The University recognizes the serious issues concerning sexual harassment and sexual assault. Sexual harassment is a form of discrimination and any harassment of students or employees on the basis of sex is expressly prohibited and will not be tolerated. Sexual assault is defined by the Hawai‘i Penal Code and it is University policy that, with the consent of the victim, all reported instances of sexual assault be investigated by law enforcement agencies and appropriate support services be provided. University policies and procedures addressing sexual harassment and sexual assault have been established and are available in the offices of the Dean of the College of Agriculture, Dean of the College of Arts and Sciences, and Student Services.

Notice to Persons with Disabilities

In accordance with federal and state law, it is the policy of the University of Hawai'i at Hilo that no otherwise qualified person with a disability shall, solely on the basis of that disability, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination by any University program or activity. Instructional and cocurricular facilities are accessible to disabled persons. The Office of Student Services responds to complaints concerning disabilities filed by students. The EEO/AA Officer responds to complaints concerning disabilities filed by employees.

The following services are available to students with documented disabilities:

- Campus orientation
- Registration assistance
- Personal, academic and career counseling
- Tutorial, reader, notetaker, and other support services as determined

The following equipment can be made available for use by the student:

- Cassette recorders
- Talking calculators
- TTY terminal for the deaf and hearing impaired
- Notebook computer
- Taped textbooks

Requests for services are made through the Student Support Services Program if the student meets the program's eligibility criteria and through the Counseling Center. Requests for services must be provided in a timely and reasonable manner. The following individuals may be contacted regarding information about the program and services:

Ms. Barbara Lee, SSSP
 Student Services Building, Room 211
 200 W. Kawili St.
 Hilo, Hawai'i 96720-4091
 Telephone: (808) 974-7619

Mr. Lawrence Test
 Counseling Center
 200 W. Kawili St.
 Hilo, Hawai'i 96720-4091
 Telephone: (808) 974-7312

Persistence Rate

Recent federal legislation, commonly referred to as the "Student-Right-to-Know Act" requires universities receiving federal funds to report graduation rates of students who first enrolled in Fall 1991. As not enough time has elapsed since Fall 1991 to make such data meaningful, institutions have been allowed to publish persistence rates. "Persistence rate" is defined as the percentage of full-time, first-time, degree or certificate seeking undergraduates entering a campus in Fall 1995, who re-enrolled at the same campus in Fall 1996. The persistence rate for UH Hilo is 61.9%.

Bookstore

Textbooks and other educational materials and equipment are sold at the UH Hilo Bookstore, as well as convenience and personal items and clothing. The Bookstore is located on the ground floor of Building 346.

Bookstore Hours:

Regular hours: 8:15 a.m. to 3:30 p.m.,
 Monday through Friday.
During Registration: 8:15 a.m. to 5:00 p.m.
First two days of classes: 8:15 a.m. - 8:00 p.m.
Remainder of week: 8:15 a.m. - 5:00 p.m.

Refund Policy (Receipt Required):

Full refund on item(s) returned within 7 calendar days of purchase date if in clean, unmarked, and saleable condition. 75% refund on new books returned within 7 calendar days of purchase date if in soiled or marked condition.

Exception: Full refund on books purchased within 14 calendar days from the first day of instruction of a current semester if in clean, unmarked, and saleable condition; 75% refund if soiled or marked.

Defective books, supplies, or clothing may be exchanged, refunded, or reordered at no extra charge.

No refund on catalogs.

CO-CURRICULAR ACTIVITIES

Student Organizations

Co-curricular learning, through activities, programs and services, is integral to the students' total higher education experience. This learning helps to prepare our students for the transition toward independence and self-responsibility and to support their life and career changes.

The University of Hawai'i at Hilo offers a wide range of student-administered programs, activities and services to meet the social, educational, cultural, and recreational needs of the UH Hilo community. The major organizations providing this programming are the University of Hawai'i at Hilo Student Association (UHSA), Student Activities Council (SAC), and the Board of Student Publications (BOSP). These organizations are funded by the fees assessed each semester to all enrolled students at UH Hilo. The fees also support operation of the Campus Center, the intramurals program and the Campus Center Gallery.

Students pursuing a recognized degree program who have a cumulative grade point average (GPA) of 2.0 or above may participate in student government, activities council, intercollegiate athletics, publications and selected University committees. Each organization has further qualifications for participation and any student interested in these activities should contact the Campus Center coordinator.

UHSA represents all UH Hilo students. Its primary responsibilities include research, education and action related to campus and academic issues and problems, sponsoring programs of interest and benefit to students, and participation in UH Hilo policy making and student services.

The Student Activities Council offers a variety of cultural, educational, recreational and social programs for UH Hilo students, faculty, staff and the general public.

The Board of Student Publications is the student-faculty committee which oversees student publications. These include *Ke Kalahea*, the campus student newspaper, and *Kanilehua*, a literary and arts journal. Students interested in becoming involved with student publications should drop by the offices located in the Campus Center.

Students with special interests may choose to join any of the forty-plus clubs which are active during the academic year. Clubs must be officially registered with the Campus Center Coordinator in order to utilize campus facilities, sponsor UH Hilo-related activities or to receive funding from the UHSA. The Campus Center also provides orientation and training opportunities for registered clubs and organizations throughout the year.

Student organizations and clubs provide opportunities for students to acquire leadership skills, interact with other people, and participate in recreational and academically related activities.

The student life program, in complement with our academic program, is designed to enhance the total development of our students.

Student and residence life provide hands-on opportunities to practice concepts and skills that compliment and enhance their academic learning.

Ensembles

University Chorus: A large choral organization that performs major, large-scale choral works. Any student may join this group.

University Chamber Singers: A highly select group that performs a wide variety of choral music. This group performs throughout the community and in University concerts.

Japanese Ensemble: A performing group of limited enrollment specializing in festival music of Japan, playing authentic Japanese folk instruments.

Vulcan Band: A jazz-rock ensemble which performs at Vulcan basketball games and other selected events.

Wind Ensemble: An auditioned instrumental ensemble with wind band and chamber music.

Jazz Ensemble: This group performs big band and combo jazz literature from swing to contemporary.

Dance Ensemble: A select performing group of dancers, presenting public concerts of modern, jazz, classical and traditional dance forms. Performances are often choreographed by invited artists of national reputation.

Chamber Ensemble: Small groups of varied instrumentation, which may include strings, brass, and winds separately or combined.

Collegium Musicum: A group specializing in Early Music, with particular emphasis on recorder music. Open to all interested students and faculty.

University of Hawai'i at Hilo Theatre

The UH Hilo Theatre is the major performing arts educational and cultural center on the Big Island, serving as a joint facility for the University and Big Island communities. The primary purpose of the Theatre program is to offer significant educational and diverse cultural opportunities for the University and Big Island communities where dialogue, the exchange of cultural and artistic ideas, and co-curricular activities are encouraged.

The Theatre produces, presents, and/or co-sponsors an extensive and culturally diverse year-round season of local, regional, national and international performing arts events performed by some of the world's greatest artists. The quality of events presented in the 600-seat Theatre is equal to any offered by major mainland universities. A typical season includes over 150 performances of dance, drama, music, mime, children's shows and special events. Average yearly attendance is over 60,000.

The Theatre program also produces and mounts four to ten plays, musicals and/or dance performances each season. Interested faculty, staff, students and community members are encouraged to participate in the activities of the University Theatre.

ATHLETICS

Collegiate Sports

Enthusiasm, excitement and anticipation abound on the UH Hilo campus each year as the University community supports the intercollegiate athletic program. As members of the National Collegiate Athletic Association (NCAA), the program sponsors nine sports. Men's baseball leads the way as a competitor in the NCAA Division I ranks. Men's basketball, cross country, golf and tennis, and women's cross country, softball, tennis and volleyball compete on the Division II level.

In the 1994-95 season, UH Hilo became a member of the National Collegiate Athletic Association (NCAA) and a member of the Pacific West Conference. Prior to that, UH Hilo enjoyed outstanding success as a member of the National Association of Intercollegiate Athletics (NAIA).

Basketball first brought UH Hilo into the national scene in 1977 by winning the District 2 Basketball Championship and advancing into the second round of the NAIA National Championships in Kansas City, Missouri. The Vulcans won three more District titles in 1978, 1980, 1987. While in the NAIA, UH Hilo won 371 games against only 224 defeats which includes eight 20 or more victory seasons, and has participated in 15 District post season play-offs in its 18 NAIA years. UH Hilo presently hosts one of the nation's premier invitational basketball tournaments. The Big Island Invitational Basketball Tournament features 7 Division I opponents and is held each Thanksgiving weekend.

The UH Hilo women's volleyball team has taken the small college volleyball world by storm, winning seven national championships which includes five NAIA National Championships and two AIAW Division II titles. In the unprecedented 1981 season, UH Hilo won two national championships: first the NAIA Championships at Concord College in West Virginia, then the second AIAW (Division II) at Colorado College.

Baseball has also enjoyed great success in the NAIA, advancing as District and Area Champion to three World Series. Women's softball has been in existence for eight years and has won the District 29 Championship three of those years. UH Hilo, indeed, has a great championship tradition in the NAIA and serves as co-host for one of the nation's top intercollegiate golf tournaments in February of each year.

All full-time students enrolled at the University of Hawai'i at Hilo, in compliance with UH Hilo academic standards and NCAA eligibility regulations, are eligible to participate in the intercollegiate athletic program. NCAA eligibility handbooks are available in the office of the Director of Athletics.

Intramural Recreation

The Office of Intramural-Recreational Sports, funded by the Student Activities fee, conducts an extensive program for men and women to supplement regular physical education classes. The three types of general activities available are team sports (basketball, volleyball, softball), individual and dual sports (tennis, golf, bowling, table tennis, badminton, cribbage and horseshoe throwing) and sport skills contests (punt, pass and kick, basketball free throw and golf putting). All students, faculty and staff are eligible to participate. The UH Hilo intramural sports program is served by a full-time coordinator and a staff of student assistants.

STUDENT SERVICES

FOR INFORMATION, PLEASE CALL:

Office of Student Services
 (808) 974-7334
 (808) 974-7691 (FAX)
 e-mail: gailml@hawaii.edu
 Student Services Building
 Room 209

The Office of Student Services supports the academic goals of UH Hilo by providing programs and services to support the academic, personal and social development of students. A broad range of services is provided to facilitate access to higher education, encourage involvement in campus life, strengthen academic performance, develop leadership skills, enhance personal growth and interpersonal skills, and promote multicultural awareness. These services include: admissions and outreach; registration and records; financial aid; new student orientation; housing; student exchange programs; educational, personal and vocational counseling; testing; health services; Campus Center and student activities; drug abuse prevention; and Educational Opportunity Programs.

UH Hilo is also an institutional member of Campus Compact, a national organization of colleges and universities committed to developing and encouraging public and community service. UH Hilo recognizes the importance of volunteerism and public service as integral parts of the university experience, and both curricular and cocurricular programs support service-learning opportunities.

While most student services offices are located in the Student Services Building, programs are also offered on the Manono campus, in student housing, and at the Campus Center.

Academic Support Services

Academic Support Services are designed to help all students enhance academic success and personal/social development.

Counseling

Individual and/or group counseling is provided by appointment or walk-in in the following areas:

1. **Academic:** To help students be successful in their course work. Includes learning and study strategies, academic rules and regulations and educational options.
2. **Personal:** To assist students in the development of self-esteem and positive interpersonal relationships as well as in the resolution of problem behaviors such as stress, substance abuse, and depression.
3. **Career:** To help students identify career alternatives appropriate to their interests, abilities, and values. Interest inventories and resource materials are available in the Career Center.
4. **Job Placement:** To assist students obtain part-time off-campus jobs as well as permanent full-time employment. Includes job search strategies, resume writing, and interviewing skills.
5. **Graduate/Professional School National Testing Programs:** To provide information, applications, and testing services.

Most national examinations are given on campus at scheduled times throughout the year.

In addition to responding to student requests for assistance,

Counseling Center staff outreach to students with special needs. Through a cooperative arrangement with faculty, for example, students who are observed early in the semester to be having difficulty in a course are referred for immediate counseling through the Academic Counseling Referral Program. In addition, all students on first time academic probation receive letters as part of the Academic Success Program inviting them to avail themselves to various forms of counseling assistance.

Counselors play an active role in presenting self-development workshops open to the University community. Topics include various aspects of learning skills as well as personal and career development.

Academic Advising

The University provides academic advising for students through the General Advising Center and through academic departments. Academic advising includes: assisting students in clarifying, articulating, and attaining educational and life goals; facilitating each student's academic adjustment to the campus; educating students to assess academic progress and to develop appropriate educational plans; explaining and clarifying graduation requirements and academic rules and regulations; and serving as advocates and mediators for students.

Students who do not make a definite choice of major when entering the University are designated general students and are advised by faculty. Students are assisted in designing a program of studies to meet the general requirements of the University and provided with information about possible major fields. Students accepted as declared majors are advised by faculty advisors who are specialists in their subjects, major requirements, related graduate programs and employment opportunities in their discipline. All students are strongly encouraged to seek advising assistance early in their university careers.

Financial Aid

The Financial Aid Program at the University of Hawai'i at Hilo is designed to provide financial assistance to students who without such assistance would not be able to attend college. Depending on the availability of funds, assistance is offered only after it is determined that the financial resources of the family are insufficient to meet a student's educational expenses. The amount of financial assistance offered to a student will not exceed the difference between his/her educational expenses and the amount which the family can reasonably be expected to contribute, taking into consideration its income, assets, number of dependents, and other relevant information. Financial assistance may be awarded under one or more scholarship, grant, loan, or employment programs.

Eligibility. To qualify for financial assistance, a student must establish financial need by means of the appropriate applications; be a classified student enrolled on at least a half-time basis; be making satisfactory academic progress toward a degree; and be a U.S. citizen or national, or a permanent resident of the U.S. or the Trust Territory of the Pacific (Palau), or a citizen of the Federated States of Micronesia or the Marshall Islands.

Non-U.S. citizens are eligible for consideration for financial aid only if they have been admitted to immigrant status or refugee status. Such individuals will be required to show their Alien Registration Receipt Card or I-94 bearing the appropriate endorsement by the Immigration and Naturalization Service.

Information listed is subject to change in accordance with re-

vised regulations or guidelines.

For more information, contact: Financial Aid Office, Office of Student Services, 200 W. Kawili Street, Hilo, Hawai'i 96720-4091, telephone (808) 974-7323/974-7324, or 974-7540.

Application Procedures. Students are required to file a Free Application for Federal Student Aid (FAFSA) or the Renewal FAFSA. Supporting documents must be submitted to the UH Hilo Financial Aid Office in order to be considered for ALL financial assistance programs administered by the University of Hawai'i at Hilo. These forms are available from high school counselors or any college or university financial aid office. Students must apply and qualify annually on the basis of demonstrated financial need. The application deadline is March 1 of each year. Late applications will be accepted on a first-in, first-served, funds-available basis.

Awards. Completed applications are generally processed within a two-to three-week time period. Students who are eligible for financial aid will be notified by mail of the type and amount of the award as soon as possible after the University has received its state and federal allocations of financial aid funds. Normally, checks for each award are given to students on or after the first day of classes and at other times specified in the award letter.

Selection criteria for aid recipients will be determined by the UH Hilo Financial Aid Advisory Committee during the spring semester preceding the academic year. A copy of these selection criteria can be obtained from the Financial Aid Office, located on the first floor of the Student Services Building.

Types of Financial Aid

The following types of financial assistance are available to students attending the University of Hawai'i at Hilo.

SCHOLARSHIPS AND GRANTS

STATE GOVERNMENT:

UH Hilo Tuition Waivers: State Tuition Waivers are available to resident students who are in need of financial assistance or to resident or nonresident students who merit assistance because of their achievement or service to the university. All applicants must be enrolled or planning to enroll as a full-time classified student with a minimum GPA of 2.0 or better. Recipients must not have earned a prior baccalaureate degree.

The Hawai'i State Tuition Waivers based on financial need do not require specific application forms other than those required for the student financial aid programs, i.e., Free Application for Federal Student Aid. Please refer to the booklet entitled "A Guide to Financial Aid at the University of Hawai'i" for specific application procedures.

Application forms for the non-need Tuition Waivers based on achievement or service are available at the office of the respective college dean, other University units, or the high school counselor as follows:

College of Arts and Sciences

(achievement or service)

Dr. Phillip A. Taylor, *Dean*

College of Agriculture

(achievement or service or entering freshman)

Dr. Jack Fujii, *Dean*

Athletics

(service)

Mr. William Trumbo, *Athletic Director*

Student Services

(graduating seniors from Hawai'i Island High Schools)

Counselors at Hawai'i Island High Schools

Tuition Waivers for Students of Hawaiian Ancestry:

Students of Hawaiian ancestry from outside Hawai'i automatically qualify for residency. In addition, there are full tuition waivers available for students of Hawaiian ancestry.

Application forms for these need-based Tuition Waivers are available at the respective UH Hilo Department Offices as follows:

- Hawaiian Studies Department Chairperson
- Hawaiian Leadership Development/Student Support Services/Minority Program Directors

Pacific-Asian Scholarship: Tuition Waivers are available for students enrolled or planning to enroll as a full-time classified student pursuing a course of study important to the Pacific-Asian region. Recipients must meet academic criteria indicating superior performance in their chosen field of study. Minimum 3.0 cumulative GPA required.

Additional Athletic Scholarships and Tuition Waivers are available through the Athletic Department. Contact Mr. William Trumbo, Athletic Director, (808) 974-7621 or (808) 974-7520.

STATE AND FEDERAL GOVERNMENT:

Hawai'i Student Incentive Grant: Provides tuition grants to qualified and needy undergraduates who are bona fide residents of the State of Hawai'i. To qualify, a student must also be eligible for the Federal Pell Grant.

FEDERAL GOVERNMENT:

Federal Pell Grant: Provides eligible classified students, who are undergraduates, with a "floor" of financial aid to help defray the cost of post-secondary education.

Federal Supplemental Educational Opportunity Grant: Provides assistance to undergraduates with exceptional financial need.

ENDOWED AND OTHER SCHOLARSHIPS (PRIVATELY SPONSORED)

The purpose of the Scholarship Program at the University of Hawai'i at Hilo is to recognize and reward students who have demonstrated outstanding academic performance and to encourage those students who show academic potential and a willingness to participate in community activities. The scholarship awards imply the expectation of continued exceptional performance and leadership by the recipients in the years ahead.

UH Hilo scholarship funds come from various sources such as private donors, foundations, professional associations, and state and local business firms.

SPECIFIC SCHOLARSHIPS

Qualified students who are enrolled or plan to enroll in full-time study at the University of Hawai'i at Hilo may apply for the following scholarships:

Gloriana Adap Memorial Scholarship for Singers: \$100 to \$200 scholarship awarded annually to students enrolled or planning to enroll in music studies at UH Hilo. Recipients must be full-time students, maintain a GPA of 2.5 in music courses and 2.0 overall, and participate in all UH Hilo choral ensembles. Interview and audition required. Applications and information are available from the Performing Arts Department Chair or the Department Scholarship Coordinator, (808) 974-7352.

Richard Adap Memorial Scholarship for Singers: \$250 to \$500 scholarship awarded annually to students enrolled or planning to enroll in music studies at UH Hilo. Recipients must be full-time students, maintain a GPA of 2.5 in music courses and 2.0 overall,

and participate in all UH Hilo choral ensembles. Interview and audition required. Applications and information are available from the Performing Arts Department Chair or the Department Scholarship Coordinator, (808) 974-7352.

Alpha Delta Kappa, Delta Chapter Scholarship: \$500 scholarship awarded annually to qualified students enrolled or planning to enroll in the Education Department's Professional Degree Program (Undergraduate and Graduate). Minimum 3.0 GPA required.

American Hawai'i Cruises: \$2,000 scholarship grants -- one for every public high school in Hawai'i -- to recognize outstanding academic achievement and community service. **All Hawaii public high school seniors ranking in the top 15% of their graduating class and who will attend any campus of the University of Hawai'i in Fall 1997 are eligible for consideration.** Each recipient will be required to participate in two community service activities during the year as arranged and coordinated by the Service Learning Program of the University's Office of Student Services in association with American Hawai'i Cruises Community Relations Department.

Ruth E. Black Scholarship: Scholarships of \$200 or more awarded to students who demonstrate the potential for academic growth and achievement. First priority for scholarships shall be given to the sons and daughters of engineers, contractors and construction workers. Second priority shall be given to students pursuing construction-related fields of study: engineering, pre-engineering, architecture, drafting, carpentry, construction trades, etc. Third priority shall be given to all other well-qualified students.

Beatrice Campbell/Beckley/Hoowaiwai Farms Scholarship: Scholarship(s) awarded annually to College of Agriculture students who are graduates of Big Island high schools.

Larry Child Scholarship: \$1,500 or more awarded annually. Recipients must be Hawai'i residents. Four-year renewable scholarship but must apply each year.

Criminal Justice Scholarship: Annual awards (amount of awards dependent on income from investments) for Hawai'i State resident students interested in making community service contributions on the Island of Hawai'i to needy individuals or charitable organizations or agencies that serve the needy.

Martin K. Doudna Memorial Scholarship: \$500 awarded annually for Junior and/or Senior year study in the English program. Minimum 3.5 GPA required.

Marjorie Ewbank Fund: Funds provided for students who entered on the basis of their parents' ability to pay for their education and are then faced with a situation in which the parents are no longer financially able to provide these funds due to death, illness, unemployment, bankruptcy, catastrophes, etc. Award amount based on need.

Hawai'i Concert Society Scholarship: An annual award of varying amount given by the Hawai'i Concert Society to a deserving UH Hilo music student. Recipient must be a full-time student, maintain a GPA of 2.5 in music courses and 2.0 overall, participate in a UH Hilo music ensemble, and perform for the Society at its annual meeting. Interview and audition required. Applications and information are available from the Performing Arts Department Chair or the Department Scholarship Coordinator (808) 974-7352.

Daniel G. Fox Prize for Excellence in Computer Science: Daniel G. Fox was a UH Hilo Computer Science major who would have graduated in December 1990. In his memory, the Daniel G. Fox Prize for Excellence in Computer Science (\$500 and a full tuition waiver) is awarded each year to the incoming Computer Science senior who demonstrates the greatest academic achievement. Applicants begin by writing a letter to the Computer Science department requesting consideration and setting forth anything which the applicant considers appropriate in support of the application.

Barney S. Fujimoto Memorial Scholarship: Six or more \$600 awards given annually through Big Island high schools to graduating high school seniors with financial need. Contact your high school counselors for an application.

Gary Haleamau Scholarship in Hawaiian Studies and Hawaiian Music: Two \$500 scholarships awarded annually to one student enrolling at UH Hilo and one student enrolling at UH Hilo-West Hawai'i Educational Center. Recipients must be graduating seniors of Big Island high schools with a declared major in Hawaiian Studies or in Music with an expressed interest in Hawaiian Music at UH Hilo.

Mr. and Mrs. George D. Hall Jr. Memorial Athletic Scholarship: Awarded to a designated student athlete at UH Hilo. This scholarship, which can be renewable to the same student for as many as five years, will provide the total cost of tuition, books, fees, room, and board. Financial need is not necessary.

Charles R. Hemenway Scholarship: Scholarships ranging from \$200-2000 are awarded each year. Recipients must be Hawai'i residents.

Hilo High School Class of 1940 Scholarship: One \$500 scholarship awarded annually to a graduating senior from Hilo High School.

Ronald S. Jitchaku Memorial Scholarship: Tuition award for full-time students enrolled in the UH Hilo Liberal Studies/Administration of Justice Program. Recipients must be graduates of a high school in the State of Hawai'i. The number and amount of scholarships will be based on the availability of funds.

Williard D. Keim Memorial Scholarship: \$500 or more awarded annually to Political Science majors with a cumulative G.P.A. of 3.0 or above.

Paul J. Kopecky Memorial Scholarship: Minimum of \$500 awarded annually to students who are active in the area of student services either through student employment, activities, as a volunteer or in some other way.

J. M. Long Foundation Scholarship: \$500 awarded annually to students enrolled in health or business related programs. Recipients must be residents of Hawai'i.

Constance E. Masutani Memorial Scholarship: One \$400 scholarship awarded annually to a graduate of Big Island high schools. Preference given to Hilo High School graduates if all other qualifications are equal.

Carol McCall Memorial Scholarship: \$250 per semester scholarship awarded each semester to applicants from UH Hilo-West Hawai'i Educational Center who have at least one semester at West Hawai'i with a minimum cumulative GPA of 2.5.

Jack Miyashiro Endowed Athletic Scholarship: Two \$700 scholarships awarded annually to UH Hilo students with demonstrated athletic ability meeting the NCAA eligibility requirements.

Regents Scholarships for Academic Excellence: These highly competitive academic scholarships are awarded to 20 incoming freshmen at any University of Hawai'i campus who are residents of Hawai'i. These awards, which are renewable for qualified students, consist of \$4,000, a tuition waiver, and a one-time travel grant.

Specialist Chad Delos Santos Memorial Scholarship: \$1000 scholarship awarded annually to a member in good standing of the Hawai'i Army, Hawai'i Air National Guard or their dependents.

Virginia Pearson Ransburg Delta Kappa Gamma Scholarship: Awards in the amount of annual tuition costs are given to students enrolled in the Teacher Education Program. Recipients must be from the Federated States of Micronesia, the Republic of Palau, Marshall Islands, or the Commonwealth of the Northern Marianas Islands. Preference given to female applicants majoring in Education.

Dr. Frederick K.T. Tom Memorial Scholarship: \$500 scholarship awarded annually to a graduating Hawai'i island high school senior or entering junior or entering senior in the College of Agriculture. Minimum 2.5 cumulative GPA required. Renewable, but must reapply the following year. Application deadline: March 1.

Dr. Francis F. C. Wong Memorial Scholarship: Four or more \$500 scholarships awarded annually to Hawai'i Island high school graduates who have excelled as athletes.

James S. Yagi Memorial Scholarship: Four \$250 scholarships awarded annually to graduates of Hawai'i Island high schools. Preference will be given to entering freshman.

Michio Yoshimura Memorial Art Scholarship: \$300 scholarship awarded annually to a graduate of a Big Island high school. Preference given to the graduating seniors from Waiakea and Hilo High Schools. Recipient must be admitted as an Art Major at UH Hilo. This award may be renewable but students must apply each year.

UHSA Student Association Motivated Student Scholarship: One \$600 scholarship awarded annually to students involved in co-curricular activities. Recipients must have a minimum 3.0 GPA.

C. Brewer and Company Achievement Award: A \$500 achievement award is given to the College of Agriculture sophomore who earned the highest GPA in the previous year as an entering full-time freshman in agriculture. The recipient must be a graduate of a high school in the State of Hawai'i and have a cumulative GPA of at least 3.0 at UH Hilo. No application required.

Business Administration Rising Senior Achievement Award: A one-year tuition waiver is given by the Business & Economics faculty in September to the senior who earned the highest cumulative GPA in his/her previous years at UH Hilo. The student must be attending UH Hilo full time, be a declared business administration major, and have completed a minimum of 30 credit hours of study at UH Hilo. Satisfactory academic achievement is required in order to renew the award for the second semester. No application necessary.

Thomas E. Cook Memorial Scholarship for the Humanities: \$500 scholarship offered by the Church of the Holy Apostles of Hilo, awarded annually to Hawai'i residents enrolled or planning to enroll in a program of study of the Humanities (e.g., Art, English, Language, Music, Philosophy, Religious Studies, Speech and Communication). Applicants must be Hawai'i Island residents. All qualifications being equal, preference will be given to students of Hawaiian ancestry.

Thomas E. Cook Memorial Scholarship for Musicians: \$500 awarded annually by the Church of the Holy Apostles to students engaged in vocal training in the UH Hilo Performing Arts Department. Recipients must be full-time students, maintain a GPA of 3.0 in music courses and 2.5 overall, and participate in all UH Hilo choral ensembles. Financial Aid Form (available from Financial Aid Office), interview, and audition required. Applications and information are available from the Performing Arts Department Chair or the Department Scholarship Coordinator (808) 974-7308 or (808) 974-7352.

Hawai'i Island Chamber of Commerce Scholarship: \$1,400 (\$700 payable each semester) scholarships awarded annually to sophomores or juniors with a declared major in either Business and/or Economics for use in their junior or senior year.

Hawai'i Veteran's Memorial Fund: \$200 to \$400 scholarships awarded annually to UH Hilo students with minimum cumulative GPAs of 2.5 for Freshman/Sophomore and 2.75 for Juniors/Seniors. Must be a Hawai'i resident.

Alice E. Healy Art Student Scholarship Fund: Scholarship awards made to students enrolled in the art discipline course work. Award amount varies and funds may be utilized for varied purposes, including the purchase of supplies and materials required for course work and independent projects; travel and registration expenses for workshops, lecture/demonstrations, and exhibition visitations in the State of Hawai'i.

George M. Matsumura Memorial Scholarship: Two \$200 scholarships awarded annually to part-time or full-time employees of KTA Super Stores who enroll or plan to enroll in the business field (with an emphasis in accounting) at the University of Hawai'i at Hilo or the University of Hawai'i at Manoa.

Pomare/Hilo Hattie Scholarship: \$500 scholarship. Preference given to employee or relative of employee of Pomare, Ltd. dba Hilo Hattie.

Presidential Achievement Scholarships: These highly competitive academic scholarships are awarded to ten college juniors who are residents of Hawai'i and enrolled at the Manoa, Hilo or West Oahu campuses of the University. These awards, which are renewable for qualified seniors, consist of \$4,000, a tuition waiver, and a one-time travel grant.

Leon J. Rhodes Student Development Award: \$1,200 awarded in mid-May to recognize students at the end of their sophomore year who have become good citizens, self-determined, and who have developed successful human relationships as a result of their experiences at UH Hilo.

Rotary Club of South Hilo: \$500 scholarships awarded annually to students enrolled in the College of Arts & Sciences who have demonstrated an interest in Ecology or Environmental Studies.

Marie E. Schleichert Annual College of Agriculture Scholarship: \$100 scholarships awarded annually to College of Agriculture students. Recipients must be native to Hawai'i and have a desire to work in forestry or some phase of agriculture or aquaculture, with an intent to save the land and seas in and around Hawai'i (horticulture is excluded). Preference will be given to applicants of Hawaiian or native American ancestry.

Sure Save, Tom Okuyama Scholarship: \$500 scholarship awarded annually to a graduating Hawai'i Island High School senior with a cumulative GPA of 3.0 or above, minimum SAT scores of 400 verbal and 400 for mathematics. Recipients must be active in community affairs.

Travel Womens Hawaii-Hilo Chapter Scholarship: \$500 scholarship awarded annually to a second year student planning to pursue a career in the Travel Industry on the Island of Hawai'i. The recipient must be a resident of the Island of Hawai'i.

Hawai'i County Farm Bureau Scholarship: One \$500 scholarship is awarded annually to a deserving UH Hilo College of Agriculture full-time student who has accumulated at least 28 credits upon entering his/her sophomore year. Applicants must be graduates from a local high school, must have at least a 3.0 cumulative GPA, and have a sincere interest in promoting the agricultural industry on Hawai'i Island.

Big Island Pork Industry Association Scholarship: An annual \$250 scholarship awarded to a full-time junior or senior in the College of Agriculture majoring in Animal Science. Student must submit an essay of 750 words or less describing an issue facing the pork industry in Hawai'i and provide solution(s), and two letters of recommendation from current or former professors or employers. Submit application to the Dean, College of Agriculture, by March 1.

Hawai'i Anthurium Industry Association Scholarship: One \$1,000 scholarship (\$500 per semester) is awarded to a deserving UH Hilo College of Agriculture full-time student majoring in Tropical Crop Production. Applicants must be entering their junior year and have been a student at UH Hilo for four semesters. They must have at least a 2.5 cumulative GPA and have a sincere interest in promoting the Floriculture industry. Award is intended for students who plan to live on Hawai'i Island, and who have entrepreneurial desires in the Horticulture field.

Founders Alumni Scholarship: \$1,000 scholarships awarded annually to Hawai'i High School graduates planning to enroll in the University of Hawai'i system.

Waipunalei Scholarship for the Hawaiian Leadership Program: \$1,000 awards for native Hawaiian students in the Hawaiian Leadership Development Program. Recipients must have a minimum 2.5 G.P.A., financial need and excel in the area of leadership.

Paul Goughides Memorial Grant for Pianists: An award of an amount to be determined by the Music Scholarship Committee given to a serious piano student. Recipient must be a full-time student, maintain a GPA of 3.0 in music courses and 2.5 overall, and participate in a UH Hilo music ensemble. Interview and audition required.

Baccalaureate Nursing Degree (BSN) Upper Division Scholarships: Applications and information for the following scholarships are available from the BSN Department at (808) 974-7761 or the Financial Aid office, (808) 974-7323.

***Hilo Medical Center Auxiliary Nursing:** \$500 scholarships renewable each semester for up to two years to students in the BSN program. Cumulative GPA of 2.7 or above and volunteer service to community/university groups required.

***Kuakini Foundation Nursing Scholarship:** Two \$500 scholarships are given annually to students in the BSN program. Cumulative GPA of 3.0 or above and volunteer service to community/university groups required.

***Sigma Theta Tau Scholarship:** \$500 scholarships given each semester to students in the BSN program. Cumulative GPA of 3.3 or above required.

Hawai'i Emergency Physicians Associated, Inc. Scholarship: Four \$1,000 scholarships awarded annually. Two for children of Hilo Medical Center staff and two for students from the districts of North Hilo, South Hilo or Puna. Minimum 2.0 GPA required.

Additional Music scholarships are available through the Performing Arts Department. Interested students should contact the Chairperson at (808) 974-7352 or (808) 974-7304.

Grancell Scholarship: \$500 awarded annually to a superior music student. Recipient must be a full-time student, maintain a cumulative GPA of 2.5 in music courses, 2.0 overall, and participate in a UH Hilo music ensemble. Applications and information are available from the Performing Arts Department Chair or Department Scholarship Coordinator; (808) 974-7304 or (808) 974-7352.

The following scholarships available only to UH Hilo students are provided by organizations in the Hilo area:

American Association of University Women (AAUW) Scholarship: Scholarships ranging from \$150 to \$500 are awarded annually to female students enrolled in UH Hilo's College of Arts and Sciences. Students must be pursuing a baccalaureate degree or a post-baccalaureate degree/certificate and be at least a junior at the beginning of the academic year for which the scholarship is awarded. Application forms may be obtained from the UH Hilo Financial Aid Office or from the AAUW Scholarship Committee, c/o Sherry Amundson, Chair, 441 Haili Street, Hilo, Hawaii 96720.

Hilo Women's Club Scholarship: \$550 scholarships available to female graduates of Big Island high schools enrolled or planning to enroll at UH Hilo. Minimum GPA of 3.5 required. Application forms and information may be obtained from Big Island school counselors or the UH Hilo Financial Aid Office.

Assistance to Physically Handicapped Students: For information, contact the Hawai'i State Division of Vocational Rehabilitation. For information on the services and programs available to handicapped students at the UH Hilo, please contact the Student Support Services at (808) 974-7619.

FOR THE FOLLOWING SCHOLARSHIPS, STUDENTS SHOULD CONTACT THE SPONSORING ORGANIZATION DIRECTLY FOR INFORMATION AND APPLICATION FORMS:

American Business Women's Association (ABWA), Nani'O Hilo Scholarships: 1) Local scholarships awarded annually to women seeking education at any level; and 2) National scholarships awarded annually to women in their junior, senior or graduate years of study. Application forms and information may be obtained from Ms. Jean Prem, ABWA Scholarship, c/o the Prudential, 99 Aupuni Street #218, Hilo, HI 96720 or the UH Hilo Financial Aid Office.

Big Island Association of Nurserymen (BIAN) Scholarship: One \$1,000 scholarship (\$500 per semester) awarded annually to a full-time student in Tropical Horticulture in the College of Agriculture. The scholarship is intended to foster academic growth in the field of Tropical Horticulture. Student must have at least a 2.5 GPA from the previous school. Preference given to graduates from high schools in the State of Hawai'i. Send application to: BIAN, PO Box 4365, Hilo, HI 96720. Application deadline: September 1.

Big Island Press Club's Robert Miller Scholarship: Awarded annually to a Big Island student interested in the communications media. Applicants must have a desire for a career in the media. Applications available from Big Island Press Club, P.O. Box 1920, Hilo, HI 96720.

Big Island Sustainable Communities Association Scholarship: \$1,000 scholarship awarded annually to assist upper-division Agriculture students at UH Hilo or HawCC who have demonstrated leadership qualities in school and in the community. Student must be a resident of Hawai'i and a full-time registered student with a minimum cumulative 3.0 GPA. Send applications to: Scholarship Committee, Big Island Sustainable Communities Association, PO Box 797, Kurtistown, HI 96760. Application deadline: May 1.

The Delta Kappa Gamma Society International Beta Beta State Scholarships: \$300 scholarships are available to three students from Oahu and one each from Hawai'i, Maui, and Kauai. Recipients must be high academic achievers and committed to the field of education or a related field as a career. Application forms and information may be obtained from high school counselors, financial aid offices, or the scholarship chairpersons for the respective island chapters of the Delta Kappa Gamma Society International Beta Beta State.

Hawai'i Farm Bureau Federation Scholarship: Eligibility requirements: HFBB members, their dependents, or any legal resident may apply. Preference may be given to HFBB members. Scholarship applicants must be currently enrolled or planning to enroll or re-enter any college or university or any institution of higher learning in an agriculture or agriculture-related fields (ie: business, science, etc.).

Hawai'i Island Landscape Association Scholarship: A \$500 scholarship awarded annually to a student in their senior year at any high school on the Big Island, or currently enrolled or planning to enroll in any college or university, or any institution of higher learning in a program in horticulture, landscaping, or agriculture. Send applications to: Hawai'i Island Landscape Association, PO Box 1594, Kailua Kona, HI 96745-1594. Application deadline: April 30.

Hilo Orchid Society Scholarship: A \$500 scholarship is awarded to a deserving College of Agriculture student majoring in a discipline related to the science, hybridization, or production of orchids or other semi-tropical flowering plants. Applicant must plan to live on the Orchid Island with intent to work in the horticultural field and promote the flower industry. Student must have been a Hawai'i resident for at least one year and be at least a sophomore, full-time student with a high GPA in previous year(s). Submit application by August 1 to Hilo Orchid Society, PO Box 4294, Hilo, HI 96721.

Hilo-Puna Young Farmers Agricultural Leadership Scholarship: \$500 scholarship awarded annually to an Agriculture student with junior or senior status in the College of Agriculture. Student must be a full-time registered student with a minimum 3.0 GPA. Send applications to: Scholarship Committee, Hilo-Puna Young Farmers, PO Box 797, Kurtistown, HI 96760. Application deadline: May 11.

Kamehameha Schools Bishop Estate Scholarships: Students of Hawaiian ancestry or part-Hawaiian ancestry are encouraged to apply for the Kamehameha Schools Bishop Estate Scholarships. Application forms and information may be obtained by writing to the Department of Financial Aid, the Kamehameha Schools Bishop Estate, 1887 Makuakane Street, Honolulu, HI 96817, or call direct, phone (808) 842-8612.

Kauai County Farm Bureau Scholarship: Four \$350 scholarships awarded annually to students who are residents of Kauai. Applicants must major in agriculture, aquaculture, or a closely-related field. Awards will be given on the basis of scholastic achievement and participation in agriculture and aquaculture related activities in the school and community. Send applications to: Kauai County Farm Bureau Scholarship, c/o Mr. Richard Coffman, PO Box 252, Kalaheo, HI 96741. Application deadline: July 1.

Bert Nakaji Scholarship: Awarded annually to a graduating senior from a Big Island high school. Applicants must have financial need and intend to major in the humanities. For further information and application forms, consult with a high school counselor, or write to Mr. Cyril Kanemitsu, 167 Keawe Street, Hilo, HI 96720.

Native Hawaiian Higher Education Program: Funded by the U.S. Department of Education and administered by the 'Aha Punana Leo. The goal of this program is to support native Hawaiians in pursuit of post-secondary education in Hawai'i and the continental U.S. This scholarship will enable students to successfully complete their course of study and achieve fluency in the Hawaiian language, to be utilized in their chosen professions within the communities that have provided family-based sustenance to the student's education process. In support of the aforementioned educational goals, students in receipt of this scholarship are required to study Hawaiian language. For more information, contact the Hawaiian Leadership Development Program at (808) 974-7413 or the Hawaiian Studies Program at (808) 974-7475 or Kehau Tolentino at Hale Kao'o Punana Leo-Kala Hele Kulanui, 1744 Kinoole Street, Hilo, HI 96720.

Panaewa Hawaiian Home Lands Community Association Scholarship: Two \$150 and two \$250 scholarships awarded annually to dependents of the Panaewa Hawaiian Home Lands Community Association (PHHLCA) members. The applicant's parents must have been a member of the PHHLCA for at least two years. Application forms may be obtained from the UH Hilo Financial Aid Office or by writing to PHHL Community Association, Scholarship Committee, 102 Paipai Street, Hilo, HI 96720.

Professional Secretaries International (PSI) Kohala Coast Chapter Scholarship: \$250 or more awarded annually to residents of the Big Island enrolled or planning to enroll in Business Administration, Secretarial Science, Office Administration, Secretarial Science, Office Administration or equivalent curriculum. Application forms may be obtained from the University of Hawai'i at Hilo, Financial Aid Office or by writing to: Ilona Haggerty, President, Professional Secretaries International (PSI) Kohala Coast Chapter, P.O. Box 383598 Waikoloa, HI 96738.

Zonta Club of Hilo Scholarship: \$400 scholarships awarded annually to students enrolled or planning to enroll in the Practical Nursing, Associate Nursing Degree, Computer Science, or Agriculture programs at UH Hilo. Application forms may be obtained from the UH Hilo Financial Aid Office or by writing to: Chairperson, Scholarship Committee, ZONTA Club of Hilo, P.O. Box 1915, Hilo HI 96720.

Hawai'i Community Foundation Scholarships: All students are encouraged to apply for the various scholarships administered by the Hawai'i Community Foundation. Applications and information may be obtained from the University of Hawai'i at Hilo, Financial Aid Office, or by writing to the "Hawai'i Community Foundation, 222 Merchant Street, Honolulu, HI 96813."

Applications for specific scholarships are available from the UH Hilo Financial Aid Office (unless otherwise indicated) during the fall and spring semesters for the succeeding academic year. Application deadline dates range from February 1 to April 1. Instructions, criteria for selection, and deadline dates are printed on the reverse side of each scholarship application. Contact the Financial Aid Office by writing to the University of Hawai'i at Hilo, 200 W. Kawili Street, Hilo, HI 96720-4091 or call (808) 974-7323. The office is located in the Student Services Building. Office hours are 8:00 a.m. to 4:30 p.m., Monday-Friday.

Loans

Federal Perkins Loans: These are federal loans available to qualified students with exceptional financial need. Students may borrow up to \$3,000 annually for undergraduate education, and up to \$15,000 aggregate for the bachelor's degree. For first-year, first-time undergraduate Federal Perkins loan borrowers, the loan funds will not be replaced until thirty (30) days after the first day of class attendance. Repayment of the loan at 5% per annum simple interest begins 9 months after a student graduates, leaves school or ceases to enroll at least half-time. Loans are to be repaid within a ten-year period.

Subsidized Federal Stafford Loans: These are guaranteed loans under the Federal Family Education Loan Program that are available from commercial lending institutions, such as banks and credit unions, to students enrolled at least half-time. Eligibility is based on demonstrated financial need. First-year student may borrow up to \$2,625 per academic year; second year students may borrow up to \$3,500, and junior or senior students may borrow up to \$5,500. For first-year, first-time undergraduate subsidized Federal Stafford loan borrowers, the loan funds will not be released until thirty (30) days after the first day of class attendance.

The current interest rate through June 30, 1997 is 7.66%. Adjusted annually, this increase rate is based on the bond equivalent rate of the 91-day Treasury Bills auctioned prior to June 1, plus 3.1%. The cap on the Federal Stafford interest rate is 8.25%.

The federal government pays (subsidizes) this interest on your behalf as long as you are enrolled at least half-time. The loan fees may not exceed 4% of the loan amount. These fees are deducted from each disbursement.

You enter repayment, and pay principal and interest 6 months after you cease to be enrolled at least half-time.

The repayment period generally lasts at least 5 years but no more than 10 years with a minimum monthly payment of \$50. If you qualify for postponement of payments during any deferment or forbearance periods, those periods will not be included in the 5- and 10-year repayment period.

Unsubsidized Federal Stafford Loans: These are guaranteed loans under the Federal Family Education Program for students who do not qualify in whole or in part, for subsidized Federal Stafford loans. Borrowers can receive subsidized and unsubsidized loans for the same loan period.

Refer to the subsidized Federal Stafford Loan limits. If you borrow under both the subsidized and unsubsidized programs, the combined total cannot exceed the Federal Stafford Loan annual limits. For first-year, first-time undergraduate unsubsidized Federal Stafford loan borrowers, the loan funds will not be released until thirty (30) days after the first day of class attendance.

The current interest rate is 7.66% through June 30, 1997, and is adjusted annually. Unlike the subsidized Federal Stafford Loan, the federal government does not pay interest on your behalf. You must pay or capitalize the interest that accrues on your unsubsidized loan during the time you are enrolled in school, during your grace period, and during any period of deferment or repayment. Capitalize means that accrued interest will be added to the principal balance of your loan.

Loan fees not to exceed 4% of the loan amount will be deducted from each disbursement.

Interest begins to accrue on the day the loan is disbursed. Repayment of principal begins 6 months after you cease to be enrolled at least half-time.

The repayment period generally lasts at least 5 years but no more than 10 years. Periods of deferment and forbearance are not included in the 5- and 10-year repayment period.

Federal PLUS Loans: Under the Federal Family Education Loan Program, the parents of dependent students may borrow student loans. Parents who borrow must commence repayment 60 days after loan funds are disbursed.

State Higher Education Loans: State long-term loans available to qualified students who are bona fide Hawai'i residents. Students may borrow up to \$3,000 annually for undergraduate education and up to \$15,000 aggregate for the bachelor's degree. Repayment of the loan at 5% per annum simple interest begins 9 months after the student ceases to carry a half-time credit load. Maximum repayment period of 10 years.

Short-Term Student Loan: Short-term loans are available to meet emergency situations for direct or indirect educational costs. Loans are limited to \$100, repayable within 60 days.

Other Listings of Financial Aid

The UH Hilo Library and the Hawai'i public libraries have numerous publications on scholarships, grants and other sources of aid.

Scholarship and Financial Aid for Advanced Training Available to Residents of the State of Hawai'i, (Hawai'i State Department of Education, Bulletin Number 15): This publication listing over 500 local and national sources of financial assistance is available in high school guidance counselor offices, college financial aid offices, and in Hawai'i public libraries.

Annual Register of Grant Support (published by Academic Media, a division of Cordura Corporation): This publication is a comprehensive national listing of foundation and scholarship support and is available at the Office of Research Administration (University of Hawai'i at Manoa) and at public libraries.

Scholarship information is also posted on two bulletin boards located on the lanai of the Student Services Building throughout the year.

Students may also wish to explore the Internet for scholarship opportunities:

- 1) University of Hawai'i:
 - * <http://dbserver.its.hawaii.edu/cash/>
- 2) Others:
 - * <http://www.finaid.org>.
 - * <http://www.studentservices.com/fastweb/>.
 - * <http://www.fastweb.com>.

Student Employment Programs

Federal and state funds are provided for the employment of students who are enrolled at least half-time (6 credits) in a program of study leading to a degree or certificate and who are in good academic standing at the University of Hawai'i at Hilo.

The employment program encourages community service work and work related to the student's course of study.

Part-time employment for eligible students is designed to give work experience related to the student's educational goals, provide the needed financial assistance to pay for educational costs, and provide the University with needed personnel services.

Work hours will not exceed 20 hours per week during the academic year when classes are in session. Hourly wages are related to the type of work, required proficiency, and based on current state/federal minimum wage laws and regulations.

Students who have been awarded employment as part of their financial aid package (as determined by the applicable financial aid application forms) are given first priority for campus jobs. Students without employment awards may also fill vacant positions if they meet the minimum job qualifications.

Approximately 450 on-campus jobs are available during the academic year and approximately 200 of these positions are filled by students with employment awards. The remaining 250 are filled by students without employment awards.

Students interested in on-campus jobs are responsible for filing applications for available on-campus jobs. Job vacancies are posted on the Campus Center second floor lanai. The posted list gives information on the type of job, job qualifications, contact person, and telephone number to call for an appointment. Students are encouraged to apply for those positions that are compatible with their career goals. Employers ask that students review the job qualifications prior to applying.

Additional information and the list of offices/departments employing student helpers or off-campus employment opportunities may be obtained from the Student Employment office located in the Career Center, Room 202A, Campus Center; (808) 974-7687.

Repayments

Students will be required to refund a specified amount of money to the respective financial aid accounts if they drop classes during the tuition refund period or if they drop below half-time or completely withdraw. A reduction of credit hours during the tuition refund period of each semester will result in awards being reduced on a pro-rata basis relative to the new credit hour load. Tuition refunds for students who have received only Federal Stafford loans are returned to the respective Federal Stafford loan lenders.

International Programs

The University of Hawai'i at Hilo is a global campus with students attending primarily from Asia, Europe, and the Pacific Islands. The International Programs Office facilitates the transition of international students to the American academic environment by conducting workshops and specialized orientations. Numerous services are provided including passport and immigration assistance, cross-cultural programming, and personal counseling. Additionally, the office coordinates international agreements made with foreign institutions and hosts international visitors. The Coordinator of International Programs works closely with the International Student Association and other cultural clubs to sponsor an array of campus-wide activities such as United Nations Day and International Nite aimed at increasing cultural awareness and understanding. UH Hilo is committed to the rich contribution made to its campus by citizens of other countries.

For further information, please contact the Coordinator of International Programs, Student Services Building, Room 203; (808) 974-3313.

Environmental Internship Programs

In collaboration with the University of Hawai'i Sea Grant Extension Service, two summer environmental internship programs are offered for students who meet the qualifications for each program. These programs are part of an effort to build interest among students in considering environmental careers and to provide them the opportunity to apply information and skills learned in the classroom to real life natural resource management issues on their islands.

The Micronesia and American Samoa Student Internship Program (MASSIP) has been offered since 1994 through funding provided by the U.S. Department of Interior. The program offers students from the U.S. -affiliated Pacific Islands (the Federated States of Micronesia (FSM), the Republics of Palau and the Marshall Islands, Guam, the Commonwealth of the Northern Mariana Islands (CNMI), and American Samoa) the opportunity to return home for the summer to work with environmental agencies and organizations. Some financial resources are available for travel expenses and small stipends are offered by the host agencies. Students earn academic credit the following Fall semester through working with faculty and staff.

The University of Hawai'i Hawaiian Internship Program (UH-HIP) began in 1997 and is a sister program of MASSIP. It is available to students of native Hawaiian ancestry, and offers students the opportunity to work with environmental groups and agencies in the state of Hawai'i for two months during the summer. Most internships provide a stipend, or in some cases, employment by the participating agency. Similar to MASSIP, students earn academic credit for the internship experience in the Fall semester.

For more information about these programs, contact Sharon Ziegler-Chong, UH Sea Grant Extension Service, (808) 974-7803.

Exchange Program (National Student Exchange)

The University of Hawai'i at Hilo is a member of the National Student Exchange Program (NSE). Each year selected students attend one of the more than 125 colleges and universities in 45 states. Approximately 30 students come from other campuses across the country to contribute to the diverse population of UH Hilo. Spending a semester or year on another campus allows one to explore other geographic areas with an eye toward future graduate work or career opportunities, and fosters a better understanding of differences in ideas and values throughout the United States. In addition, this exchange enables students to pay in-state resident tuition fees. To make the most of this opportunity, advanced planning and advising are important. For more information, contact the NSE Coordinator, OSS Counseling Office, (808) 974-7389.

Study Abroad

Studying in another country offers a first-hand experience of other cultures and provides for the acquisition of valuable skills and expertise for an increasingly internationalized and interdependent world. The Study Abroad Advisor can assist in the selection of programs sponsored by UH Hilo as well as from programs sponsored by the University of Hawai'i system. In addition, UH Hilo students are eligible to participate in study abroad programs sponsored by participating campuses in the National Student Exchange Consortium. Information and advising are also available for other study abroad opportunities. Contact the Study Abroad Advisor, OSS Counseling Office, (808) 974-7399.

Western Undergraduate Exchange (WUE)

The University of Hawai'i at Hilo participates in the Western Undergraduate Exchange (WUE), a program of the Western Interstate Commission for Higher Education and other western states. Through WUE, certain students who are not residents of Hawai'i may enroll at UH Hilo in designated programs, paying resident tuition plus 50 percent of that amount (plus other fees that are paid by all students). WUE students do not pay the higher charge for non-resident tuition.

Because UH Hilo participates, Hawai'i residents may enroll under the same terms in designated institutions and programs in other participating states.

Information about WUE programs available at the Hilo Campus may be obtained from the Admissions Office. Hawai'i residents may obtain information about WUE programs in other states from the WICHE Certifying Officer for Hawai'i, University of Hawai'i at Manoa, 2530 Dole Street, Room C-200, Honolulu, Hawai'i 96822 (tel. 808-948-7408), or from the WICHE Student Exchange Program, P.O. Drawer P, Boulder, Colorado 80301-9752; (303) 497-0210.

Health Services and Women's Health Clinic

The Student Health Service (SHS) is managed by a nurse/educator and provides first aid care, health education, advice on caring for illnesses, counseling on health related problems, tuberculin tests, and routine immunizations. Any student in need of medical services will be referred to a physician in the Hilo area. In the event of an accident or emergency, Hilo Medical Center, located a few miles from campus, provides 24-hour emergency care.

The Women's Health Clinic, located within the SHS, offers pelvic exams, diagnosis and treatment for sexually transmitted diseases, contraceptive methods, and pregnancy testing and counseling. Services are provided by a nurse practitioner at low or no cost to income eligible students.

The SHS is located in the Campus Center building, Room 212, and is open Monday through Friday (except holidays), 8 a.m. to 4:30 p.m., (808) 974-7636.

Student Health Insurance

Health insurance is highly recommended for all students. The University of Hawai'i Medical Plan is designed for students and is generally less expensive than most other health insurance plans. Applications may be picked up from the Health Services Office (Campus Center 212), or mailed to you by calling (808) 974-7636. **International students on non-immigrant VISAS must provide proof of adequate accident and health insurance, carry such insurance each semester, and present proof when picking up their registration materials.** A special rider to cover additional accidents and illness, repatriation and medical evacuation back to the students' home country can be purchased for a low fee.

Medical Clearance

All newly enrolled students must send in a completed Health History Form (mailed from the Admissions Office with the student's acceptance letter), results of a tuberculin skin test (PPD) or chest x-ray performed not more than 12 months prior to enrollment date, and if born after 1956, proof of immunity to measles. TB tests and chest x-rays performed in foreign countries are not acceptable for clearance.

Students returning to the University after being away for one or more semesters must follow the same regulations as newly enrolled students.

Veterans

All instructional units at the University of Hawai'i at Hilo are VA-approved educational institutions. Eligible students may receive financial assistance as provided by the Veteran's Readjustment Benefit Act and the War Orphans Assistance Act.

Veterans who are registered for the first time under the GI Bill must present Form DD 214 (formal discharge papers) to the Records Office. Dependents of disabled veterans and survivors of veterans whose cause of death was service-related, who register for the first time under any provision of the Federal Veterans' Bill, must complete and present VA Form 22-5490 to the Records Office, Student Services Building.

Veterans must contact the Records Office after each semester's registration in order to receive benefits.

Housing

Housing accommodations to meet most needs of the single student, married student, and the physically challenged student are available either on-campus or in privately owned units in the Hilo community. On-campus residence halls currently house 632 students in residence halls and apartment style arrangements. Off-campus housing includes privately owned apartments, homes, or rooms in the Hilo community.

Due to the limited number of housing accommodations, students and potential students are encouraged to apply early for on-campus housing.

The Housing Office is located in room H-109 of the Multi-Purpose Building, Hale 'Ikena Residence Hall; (808) 974-7522.

On-Campus Housing

In its residence hall operation, the Student Housing Program is committed to providing an atmosphere where personal growth can occur in an environment that compliments the educational objectives of the University. Residents, student staff, and professional staff carry out this commitment by adhering to concepts of responsible freedom which encourage active participation in the residence hall community. Numerous opportunities for self and group development are available to the residents through participation in the areas of educational, recreational and social programming, community government, and the development of resident hall policies and procedures.

Residence Halls

There are four coeducational residence halls on the UH Hilo campus, two traditional, one suite, and one apartment style hall. Rooms are furnished with twin-size beds, chest of drawers, chairs, bookshelves and desks. All other furnishings, including linens, must be supplied by the residents. All residence halls have recreation lounges, television room, study rooms (except Hale 'Ikena), and laundry facilities.

Two traditional-style halls, Hale Kauanoe and Hale Kanilehua are located on the Main Campus. The majority of rooms in these halls are designed for two students (double accommodations). Residents in the traditional-style halls and suite must participate in a board program with meals served at the Residence Hall Dining Room. A variety of meal plan options are offered.

Hale Kauanoe is alcohol-free and substance-free. All residents voluntarily agree not to possess or to consume alcoholic beverages anywhere within Hale Kauanoe's bedrooms, hallways or common areas. Hale Kauanoe observes regular UH Hilo study/quiet hours with extra care. It also includes satellite tutoring and a computer facility.

Hale Kehau is a 236-bed, suite-style coed hall. Each two rooms share a bathroom that connects both rooms. All rooms are fully carpeted. Six units are designed to meet the needs of students with disabilities.

Hale 'Ikena, an apartment-style facility, provides accommodations for 196 students. Students applying to Hale 'Ikena must be 21 years of age or have completed 24 college credits. The majority of apartments in this facility are two-bedroom units with accommodations for four students in each unit. There is a limited number of one-bedroom apartment units accommodating two students. All apartment units are fully furnished with private bathroom, living room, and kitchen. Residents must provide their own linens, cooking and eating utensils. Unlike the residence halls which close during the Christmas interim and Spring recess periods, Hale 'Ikena remains open throughout the entire academic year. Students requiring housing during the periods when the University is not in session are encouraged to apply to this facility.

Married students may reside in student housing provided that at least one spouse per married couple is a full-time student who qualifies under the geographical area provisions of the Board's applicable priority system, the other spouse being a full-time or part-time student.

Physically Challenged Students

Two apartments at Hale 'Ikena and several rooms at Hale Kehau have been designed to meet the needs of physically challenged students capable of living independently. Applicants for these accommodations should indicate on their application the nature of their need. Students must apply by regular deadlines.

Rates

I. ROOM RATES* (Per Person/Per Semester)	
A. Dormitory-Style Residence Halls	
Double room	\$691.00
Single room	\$1,037.00
B. Apartment-Style Residence Hall	
Two-bedroom unit	\$1,022.00
One-bedroom unit	\$1,324.00
C. Suite Style	
	\$874.00
II. BOARD RATES* (Fall 1996)	
• Plan A: 195 Block plus \$75.00 pts	\$1,205.07
• Plan B: 140 Block plus \$100.00 pts	\$1,038.96
• Plan C: 120 Block plus \$150.00 pts	\$984.39
• Plan 14: Any 14 meals per week:	(Fall & Spring)
	\$1,209.74
Plan 19: Any 19 meals per week:	(Fall & Spring)
	\$1,095.51

*All rates subject to change with 30 days' notice.

Application Procedures

An application for on-campus housing may be requested along with admissions materials or directly from the Student Housing Office of the University of Hawai'i at Hilo. Applications for on-campus housing may be submitted regardless of admissions status. Admissions to the University does not assure students of on-campus housing. Applications for the upcoming academic year are available in the early spring and should be submitted as early as possible. Residents of the State of Hawai'i who apply by April 15 and live in rural areas of the island of Hawai'i or neighbor islands are given the highest priority for on-campus housing. Receipt of a housing application and application fee by the Housing Office does not guarantee on-campus housing.

Off-Campus Housing

The Housing Office provides assistance in finding off-campus housing by listing privately owned homes, apartments, and rooms in the Hilo area. Contacts and arrangements with the landlord are made by the student. Materials on how to rent, find a roommate,

tenant rights, and student “survival” outside of the classroom are also available at the Housing Office.

Since there is a rush for apartments and other private rental units immediately preceding the beginning of each semester, students are encouraged to come to campus to search for housing as soon as possible. It is recommended that students make all the necessary living arrangements personally the owner or manager rather than by mail. Since a contract is a legal agreement and the terms of a contract are binding, there should be a clear understanding by both parties in writing of all terms of the contract.

Family Student Apartments

Adjacent to the main campus is Hale Kawili Apartments, a privately owned apartment complex which provides housing accommodations for married students, families, and single students. Brochures and further information may be obtained by contacting the Manager, Hale Kawili Apartments, 430 West Kawili Street, Hilo, HI 96720; (808) 959-9518.

Tenant Concerns

Any student who has questions or problems regarding housing should attempt to resolve concerns with the manager/landlord of the unit. The Housing Coordinator should be contacted if the concerns or problems cannot be answered adequately or resolved satisfactorily by the manager/landlord.

Educational Opportunity Programs

Hawaiian Leadership Development Program

The Hawaiian Leadership Development Program (HLDP) recruits talented Native Hawaiians with proven academic ability who are recognized for their potential leadership abilities and facilitates their academic and leadership development. HLDP provides students with the means to develop their leadership skills and understand their cultural background with the goal of increasing the number of Hawaiian leaders in professional fields and the general community. Participants in the program enroll in regular and selected college-level courses (i.e., University 101, Hawaiian Leadership and Hawaiian Studies courses). In addition, out-of-class activities include field trips, community service projects, workshop presentations, and cultural activities. Competitive internships are available in selected areas on and off-campus. Participants are also involved in planning and implementing the annual Hawaiian Leadership Conference held in October.

For more information, please contact the HLDP Office, Student Services Building, Room 206; (808) 974-7413.

Minority Access and Achievement Program

The Minority Access and Achievement Program Office was established as the result of an initiative by the state legislature to “improve access and success of students from underrepresented ethnic groups at the university and in the professions in Hawaii.” The students most underrepresented in higher education in this state are Hawaiian, Filipino, Samoan and other Pacific Islanders, and Indo-Chinese.

The goals of this office are to identify the needs of the target population and provide support to meet those needs. One program that has been in existence since 1990 is Peer Assistant Linkages and Support (PALS). PALS links freshmen students with upper division students who serve as peer assistants and mentors, providing academic and personal support.

The Minority Access Program (MAP) targets students who do not meet the regular admission criteria. Selected students are provisionally admitted to the University and must complete the summer bridge and academic year components which offers special courses, academic and personal support, and social and cultural activities.

More information is available at the Minority Access & Achievement Program Office, located in the Student Services Building, Room 117; (808) 974-7451.

Student Support Services Program

Student Support Services is a federally funded program designed to foster the academic achievement and success of University students. Students from the U.S. or the U.S.-affiliated Pacific Islands who are first generation college students (i.e., neither parent has earned a bachelor’s degree from college), or who are considered low-income, or who have a documented disability, are eligible for the program.

The program provides comprehensive support services such as academic advising, assistance with obtaining financial aid and scholarships, career guidance, personal counseling, and tutoring. The program also assists students in making the transition into college, monitors students’ academic progress, and helps prepare students for graduate and professional studies. Peer tutor/counselors provide individual and group tutoring. Students in the program also have the opportunity to participate in cultural and academic enrichment activities, as well as in workshops focused on personal and career development and learning skills.

Requests by students with disabilities for reasonable accommodations are arranged through the program. These may include classroom and testing accommodations, liaison with faculty, and auxiliary aids and services to promote equal access.

Information and applications may be obtained from the Student Support Services Office, Student Services Building, Room 211; (808) 974-7616.

Upward Bound

Upward Bound is a federally funded program which has been a part of UH Hilo since 1980. The program is designed to assist disadvantaged high school students on the island of Hawai’i with developing the necessary skills, motivation, and attitude to pursue a post-secondary education.

High school students who are considered economically disadvantaged and/or potential first-generation college students qualify for the program. Admission into the program is based on college potential. The program provides classes and tutoring in basic skills, academic counseling, and career exploration opportunities. Full-time college students are hired as tutors and counselors to assist in providing these services during the school year as well as during the special six-week summer residential program on campus.

Information and applications for the program may be obtained from high school counselors, or the Upward Bound Office, Building 379A; (808) 974-7337.

Upward Bound Math/Science Regional Center

As part of the Upward Bound Program, a Math and Science Regional Center was established in Fall 1992 to serve high school students from Hawai’i, Arizona, Nevada, California, Guam, American Samoa, the Federated States of Micronesia, the Commonwealth of the Northern Marianas, and the Republics of Belau and the Marshall Islands.

The purpose of the Center is to increase the academic skills and motivation of traditionally underrepresented groups to successfully pursue postsecondary degrees in mathematics, science and technology.

Referrals to the Center are made by high school teachers and counselors in the target area. University of Hawai’i at Hilo full-time students, especially those from the target areas, are encouraged to apply as tutors and counselors for the project.

For more information, please call the Upward Bound Office at (808) 974-7337.

Educational Rights and Privacy of Students

Pursuant to Section 99.6 of the rules and regulations governing the Family Educational Rights and Privacy Act of 1974 (hereinafter the Act), students in attendance at the campuses of the University of Hawai'i are hereby notified of the following:

1. It is the administrative policy of the University of Hawai'i to subscribe to the requirements of Section 438 of the General Education Provision Act, Title IV, of Public Law 90-247, as amended, and to the rules and regulations governing the Act, which protect the privacy rights of students.
2. The rights of students under the Act include the following, subject to conditions and limitations specified in the Act:
 - (a) The right to inspect and review education records.
 - (b) The right to request to amend education records.
 - (c) The right of protection from disclosure by the University of Hawai'i of personally identifiable information contained in education records without permission of the student involved.
 - (d) The right to waive certain rights under the Act.
 - (e) The right to file complaints concerning alleged failure by the University of Hawai'i to comply with the Act.
3. Students are advised that institutional policy and procedures required under the Act have been published as Administrative Procedure A7.022, Procedures Relating to Protection of the Educational Rights and Privacy of Students. Copies of AP A7.022 may be obtained from the offices of the Dean of Student Services (Student Services Bldg., Room 209, phone (808) 974-7335), Dean of the College of Arts and Sciences (College Hall 1, phone (808) 974-7300), or the Dean of the College of Agriculture (College of Agriculture Bldg., phone (808) 974-7393).
4. Directory Information: Students are advised that the following personally identifiable information is considered by the University to be directory information and, in response to public inquiry, may be disclosed in conformance with state law, at the college's discretion, without prior consent of the student unless the student informs the University not to disclose such information.
 - (a) Name of student
 - (b) Local address and zip code
 - (c) Local telephone number
 - (d) Major field of study
 - (e) Educational level (e.g., freshman, sophomore, etc.)
 - (f) Fact of participation in officially recognized activities
 - (g) Weight and height of members of athletic teams
 - (h) Dates of attendance
 - (i) Most recent educational institution attended
 - (j) Degrees and awards received
 - (k) Campus issued e-mail address

A student has the right to request that any or all of the above items not be designated "directory information" with respect to that student. Should a student wish to exercise this right, he/she must, not earlier than the first day of instruction, nor later than fourteen calendar days from the first day of instruction of a semester, or the fourth day of a summer session, inform the Registrar in writing on a form provided at the Records Office, Student Services Building, Room 101; (808) 974-7322.

5. Parents are advised that information contained in education records, except as may be determined to be directory information, will not be disclosed to them without the prior written consent of their sons and daughters.

Student Conduct Regulations

Student Conduct Code: The University of Hawai'i at Hilo has a Student Conduct Code which defines expected conduct for students and specifies those acts subject to University sanctions. Students should familiarize themselves with the Student Conduct Code, since upon enrollment at UH Hilo, the student has placed himself or herself under the policies and regulations of the University and its duly constituted bodies. The disciplinary authority is exercised through the Student Conduct Committee. The Committee has developed procedures for hearing allegations of misconduct.

Copies of the Student Conduct Code are available at the office of the Dean of Student Services (Student Services Building, Room 209; (808) 974-7335).

Academic Dishonesty: Academic dishonesty cannot be condoned by the University. Such dishonesty includes cheating and plagiarism (examples of which are given below) which violate the Student Conduct Code and may result in expulsion from the University.

Cheating includes, but is not limited to, giving unauthorized help during an examination; obtaining unauthorized information about an examination before it is administered; using inappropriate sources of information during an examination; altering the record of any grades; altering answers after an examination has been submitted; falsifying any official university record; and misrepresenting the facts in order to obtain exemptions from course requirements.

Plagiarism includes, but is not limited to, submitting, to satisfy an academic requirement, any document that has been copied in whole or part from another individual's work without identifying that individual; neglecting to identify as a quotation a documented idea that has not been assimilated into the student's language and style, or paraphrasing a passage so closely that the reader is misled as to the source; submitting the same written or oral material in more than one course without obtaining authorization from the instructors involved; or drylabbing, which includes (a) obtaining and using experimental data from other students without the express consent of the instructor, (b) utilizing experimental data and laboratory write-ups from other sections of the course or from previous terms during which the course was conducted, and (c) fabricating data to fit the expected results.

Financial Obligations to the University: Students who have not satisfactorily adjusted their financial obligations (tuition and fees, traffic violations, library fines, locker fees, laboratory breakage charges, transcript fees, loans past due, rental payments, etc.) may be denied transcripts, diplomas, and registration.

A copy of the "Rules and Regulations Governing Delinquent Financial Obligations Owed the University of Hawai'i," promulgated by the Board of Regents, is on file in the office of the Dean of Student Services.

Alcohol and Other Drugs: Consumption of alcoholic beverages is only permitted in UH Hilo student residence hall rooms and student apartments by students 21 years of age or older, with the exception of Hale Kauanoë which is designated alcohol-free. Consumption of alcoholic beverages is forbidden in all public and common areas of the residence halls. All other service or consumption of alcoholic beverages on University property requires a special permit by the Dean of Student Services or Vice Chancellor for Administrative Affairs.

Expressly prohibited is the manufacture, use, sale, purchase, distribution, or possession of dangerous drugs and narcotics as those terms are used in state and federal law at University sponsored or approved events or on University property. This includes marijuana, cocaine, heroine, morphine, LSD and other hallucinogens, as well as barbiturates and amphetamines. Students who violate state law

and/or University policies are subject to campus disciplinary action as provided for in the UH Hilo Student Conduct Code. The University fully cooperates with law enforcement agencies responsible for enforcement of laws relating to use of illegal drugs or alcohol. Complete copies of the UH Hilo Alcohol and Drug Policy are available in the office of the Dean of Student Services and Office of the Chancellor.

Lethal Weapons: Firearms, spear guns, bows and arrows, and other potentially lethal weapons are prohibited in residence halls and all areas of campus.

Residency Regulations for Tuition Purposes

Students who do not qualify on the first day of instruction as bona fide residents of the State of Hawai'i, according to the University of Hawai'i rules and regulations in effect at the time they register, must pay the nonresident tuition. An official determination of residence status will be made at the time of application. Applicants may be required to provide documentation to verify residency status. Once classified as a nonresident, a student continues to be so classified during his/her term at the college until he/she can present satisfactory evidence to the residency officer that proves otherwise.

Some of the more pertinent University residency regulations follow. For additional information or interpretation, contact the Residency Officer in the Admissions Office.

Definition of Hawai'i Residency: A student is deemed a resident of the State of Hawai'i for *tuition purposes* if the student (19 or older) or the student (under 19) and his/her parents or legal guardian have:

1. Demonstrated intent to reside permanently in Hawai'i (see below for indicia);
2. Been *physically present* in Hawai'i for the 12 consecutive months *prior* to the first day of instruction, and *subsequent* to the demonstration of intent to make Hawai'i his/her legal residency; and
3. The student, whether adult or minor, has *not* been claimed as a dependent for tax purposes for at least 12 consecutive months prior to the first day of instruction by his/her parents or legal guardians who are *not* legal residents of Hawai'i.

To demonstrate the intent to make Hawai'i the legal residence, the following indicia apply:

1. Voting/registering to vote in the State of Hawai'i.
2. Filing Hawai'i State Resident Personal Income Tax Return.
3. Other indicia such as permanent employment and ownership or the continuous leasing of a dwelling in Hawai'i may apply, but **no single act is sufficient to establish residency in the State of Hawai'i.**

Other legal factors involved in making a residency determination include:

1. The age of majority is 18 years. However, a person between the ages of 18 and 19, unless emancipated, cannot claim residency solely on the basis of himself/herself because he/she does not have the minimum 12 months residency, which commences on his/her 18th birthday. Therefore, the applicant must claim a portion of the required 12 months on the basis of his/her parent or legal guardian.
2. The twelve months of continuous residence in Hawai'i shall begin on the date upon which the first overt action (see indicia above) is taken to make Hawai'i the permanent residence. While residence will be lost if it is interrupted during the twelve months immediately preceding the first day

of instruction, resident status derived from two or more successive sources may be tacked together to compute the twelve-month period.

3. Residency in Hawai'i and residency in another place can not be held simultaneously.
4. Presence in Hawai'i primarily to attend an institution of higher learning does not create resident status. For example, being enrolled in school half-time or more, appear to be receiving significant financial support from family members who reside outside Hawai'i, are absent from the state for more than thirty days per year during school vacation periods, or receive student financial assistance based on residency in another state or jurisdiction.
5. The residency of unmarried students who are minors follows that of the parents or of the legal guardian. Marriage emancipates a minor.
6. The residency of a married person may follow that of the spouse.
7. Resident status, once acquired, will be lost by future voluntary action of the resident inconsistent with such status. However, Hawai'i residency will not be lost solely because of absence from the State while a member of the United States Armed Forces, while engaged in navigation, or while a student at any institution of learning.

Statutory Exemptions: Nonresidents may be allowed to pay resident tuition if they qualify as one of the following:

1. United States military personnel and their authorized dependents (as defined by the Armed Services) during the period such personnel are stationed in Hawai'i on active duty.
2. Persons who are legal residents of any Pacific island or Asian district, commonwealth, territory, or insular jurisdiction, state, or nation which provides no public institution of higher learning.
3. Certain employees of the University of Hawai'i and their spouses and legal dependents as defined under Internal Revenue Service rules.
4. Native Hawaiians who submit documents verifying their Hawaiian ancestry. Examples of acceptable documents include:
 - a. Official birth certificate indicating Hawaiian ancestry.
 - b. Official birth certificates of parents, grandparents, or great grandparents who are related by "blood."
 - c. Students who attended Kamehameha Schools.

Misrepresentation: A student or prospective student who provides incorrect information on any form or document intended for use in determination of resident status for tuition purposes will be subject to the requirements and/or disciplinary measures provided for in the "Rules and Regulations Governing Residency Status" available in the Admissions Office.

Appeal Process: Residency decisions may be appealed by contacting the residency officer for information on how to initiate an appeal before the Committee on Resident Status. Appeals must be filed with the residency officer on or before the thirtieth day following the mailing (or personal delivery, as the case may be) of written notification of non-resident determination or on or before ten days after the residence determination date, whichever is later. Resident tuition may be paid when an appeal is pending.

ACADEMIC REGULATIONS

The regulations which follow apply to the College of Agriculture and the College of Arts and Sciences unless otherwise indicated. In addition, each college has its own regulations which may be found in separate sections of this catalog.

Admission of Undergraduates

Application and admission information may be obtained from high school counselors in Hawai'i or from the Admissions Office, Student Services Building, or by writing to the Admissions Office, 200 W. Kawili Street, Hilo, HI 96720-4091. The admission application, entitled "University of Hawai'i Common Application Form," is accompanied by an instruction booklet, "*How to Enroll in the University of Hawai'i System*". Applications and all supporting documents must be received by July 1 for fall semester admission and December 15 for spring semester admission. Complete applications include official transcripts of all high school, college, university, business and other post-secondary schools attended, sent directly from each institution involved, and all other credentials noted in the instruction booklet. Nonresidents applying for admission must pay a nonrefundable, nontransferable \$25 application fee before their application will be processed. All applications and fees are valid for a single semester only. Acceptance *does not* imply that on-campus housing and/or financial aid is available. While the University will make every effort to assist, students must arrange for their own financial aid and housing by directly contacting the Office of Financial Aid and/or the Office of Student Housing, 200 W. Kawili Street, Hilo, HI 96720-4091.

Note: Prospective students should exercise care when obtaining information regarding admission, housing, or financial aid status. It is wise to request verification of important information, including the name of the information provider.

Omitted or Fraudulent Information

Candidates for admission are required to specify on the application form all current and previous enrollment in any post-secondary institution. Any candidate for admission who fails to inform the University of such enrollment, or who submits or has submitted on his/her behalf any required information or document which is fraudulent, or which has been altered without proper authorization, may be denied admission to the University of Hawai'i at Hilo. If the omissions and/or alterations are discovered after the student is enrolled, enrollment may be cancelled and the student may be referred to the Student Conduct Committee for possible disciplinary sanctions.

Admission Procedures

Prospective students should do the following:

1. File an official application for admissions (see previous section on Admission of Undergraduates) and submit the \$25 application fee (if you are a nonresident) by July 1 for fall semester and December 15 for spring semester.
2. If you are interested in receiving financial assistance, please request a financial aid application and file by March 1 to the Financial Aid Office, 200 W. Kawili Street, Hilo, HI 96720-4091; (808) 974-7324. (See separate section on Financial Aid program details under the Student Services heading of this catalog.)
3. In order to receive on-campus housing assignments, request and file by April 1 an official application for on-campus housing with the office of Student Housing, 200 W. Kawili Street, Hilo, HI 96720-4091; (808) 974-7522/974-7535. **Acceptance to the University does not guarantee on-campus housing.**

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The Admissions Ziplist

Check off the following as it pertains to you and you'll be well on your way to zipping through the admissions process!

Submit now:

- Application Form by July 1 (Fall) or December 15 (Spring)
- Education Application by February 1 (Fall only)
- Nursing Application by January 1 (Fall only)
- \$25.00 Application Fee for non-residents of the State of Hawai'i
- Housing Application by April 1 (Fall) or October 15 (Spring)
- Financial Aid Form (FAF) by March 1 (Fall) or July 1 (Spring)
- UH Hilo/UH Manoa Writing Placement Exam Sign-Up Form

And:

High School Seniors:

- Have official high school transcripts sent directly from your school to the Admissions Office
- Official SAT/ACT scores

Transfer Students:

- Have all college transcripts from previously attended institutions sent directly to the Admissions Office
- Have high school transcripts and SAT/ACT scores sent directly to the Admissions Office if below 24 semester credit hours completed

G.E.D. Applicants:

- Have official G.E.D. scores sent directly from the testing agency
- Official SAT/ACT scores
- Have official SAT or ACT scores sent directly from the testing agency

International Applicants:

- Application Form postmarked by June 1 (Fall) or November 1 (Spring)
- Foreign Student Supplement
- Financial Support Form
- Have official secondary or college transcripts, and/or qualifying exams sent directly from your school and/or testing agency to the Admissions Office
- All documents not in English must be accompanied by a certified English translation.
- Official TOEFL scores

Writing Placement

All entering freshmen and continuing or transfer students without English 100 or the equivalent must take the UH Hilo/UH Manoa Writing Placement Examination. Performance in this examination

will determine placement in the appropriate writing course. Registration forms for the examination are available from the UH Hilo Admissions Office or from the CAS Humanities Division Office.

New Student Orientation

Students enrolling in college for the first time are provided with an extensive week of academic and social activities designed to help them with their adjustment to the college and community. Orientation week centers on those college survival skills which are absolutely essential to the academic success of all new students at the University of Hawai'i at Hilo. A wide range of exciting orientation activities help students to become more knowledgeable about their campus and enables them to develop the needed academic and social skills to make them better educational consumers. Orientation week is required of all new freshman students and is highly recommended for all new transfer students.

Admission of Hawai'i Residents As Freshmen

Residents of the State of Hawai'i applying for admission directly from high school as freshmen are advised to submit scores of the Scholastic Aptitude Test (SAT) or the American College Test (ACT), high school transcripts or the General Education Development high school equivalency records and recommendations from school officials. A student should achieve a 2.5 (on a 4.0 scale) Grade Point Average or better in college preparatory high school courses.

Candidates for fall admission should take the SAT or ACT by December of the senior year in high school. Candidates for spring admission should take the test before or during May. For information on these tests, consult a high school counselor or write to: (SAT) College Entrance Examination Board, Box 592, Princeton, New Jersey 08540, USA; or (ACT) American College Testing Program, P.O. Box 168, Iowa City, Iowa 52440, USA.

All prospective students must have completed at least 20 units of high school work (grades 9-12) of which at least 15 are college preparatory. These include: four (4) units in English; two (2) units of math, including geometry and algebra II; two (2) units sciences from among physical, biological; and seven (7) units of electives, which may include higher mathematics, additional science, social studies, and foreign language. Three years of college preparatory foreign language study is recommended for students who wish to continue college-level work in the languages or who plan to transfer to other colleges and universities which have a foreign language requirement.

Students who intend to select a science major should have had two years of algebra, plane geometry and/or trigonometry. Solid geometry and a year of high school chemistry are strongly recommended. In addition, prospective engineering students should have studied physics and mechanical drawing. Students who plan to major in Business Administration should take two years of algebra in high school.

Prospective College of Agriculture students are advised to take high school biology and chemistry, and two years of algebra.

Applicants denied admission may reapply as transfer students after satisfactorily completing 24 semester hours of transferable courses at another regionally accredited college or university.

Profile of Admitted Students

Generally, successful applicants attain a 2.5 GPA for all college-preparatory high school course work, achieve minimum SAT test scores of a combined 900 or ACT test score of a 19 composite, and rank in the upper 50% of their graduating class.

College of Agriculture: The College of Agriculture also offers an Agriculture Development Program. This program is for students who may not meet the usual requirements of admission, but who show exceptional promise. First-time students admitted into this program are regarded as students in good standing and are subject to the same academic regulations as other students of the college but are, in addition, provided with special testing, advising, course

work, tutoring, and counseling to improve their abilities and chances of success. Please refer to the College of Agriculture section for further information.

Admission of Nonresidents

Candidates for admission from outside the State of Hawai'i must meet all the requirements noted for Hawai'i applicants. Out-of-state candidates should await written notice of acceptance before coming to Hawai'i. No special consideration will be given to students whose applications have not been accepted.

Fall 1996 Enrolled Freshmen Profile

Applied 1,275, accepted 786 (62%), enrolled 445 (57%), average high school GPA 3.07, average class rank 69%, middle 50% SAT range 770 -1010, 84% in-state, 12% non-resident, 4% international, 15% private, 85% public.

Admission of International Students

International applicants must fulfill all requirements for regular admission as stated above and must comply with all regulations of the Immigration and Naturalization Service. They must submit the Common Application Form and the Supplementary Information Form for Foreign Students.

Candidates must present evidence of having completed the equivalent of a United States high school education (12 years of primary and secondary schooling). Such evidence may include an official copy of secondary school academic records, and/or official certificates of the results of qualifying examinations and attested true copies of mark sheets. The Scholastic Aptitude Test (SAT) is not required, but recommended. All documents not in English must be accompanied by a certified English translation.

All international candidates whose native language is not English must also submit the results of the Test of English as a Foreign Language (TOEFL). Information about the TOEFL may be obtained from the American embassy or consulate offices in most countries, or by writing directly to: Test of English as a Foreign Language, Box 899, Princeton, New Jersey 08540, USA.

All documents and test score results should be received by June 1 for fall semester and November 1 for spring semester.

Since financial aid is not available to students from other countries (except those from Micronesia), international students must provide verification from a sponsor of financial support for the entire period of study in the United States. A select number of highly qualified international students from certain Pacific/Asian jurisdictions may be eligible for a complete or partial tuition subsidy. Please contact the UH Hilo Admissions Office for details. **MEDICAL INSURANCE IS REQUIRED OF ALL INTERNATIONAL STUDENTS ENROLLED AT THE UNIVERSITY.**

Admission of Transfer Students

Transfer students are those who were previously enrolled at a college or university other than the University of Hawai'i at Hilo.

Students who are transferring to UH Hilo must arrange for all official college transcripts to be sent to the Admissions Office directly from institutions previously attended. Those who have completed fewer than 24 acceptable semester hours of college-level work or who have enrolled in an unaccredited institution must also submit their high school transcript and SAT or ACT results. Transfer students who have completed at least 24 semester hours in a curriculum comparable to UH Hilo from an accredited U.S. college or university will be evaluated for transfer on the basis of their college transcripts only.

All students with less than 48 transferable semester credits must have obtained a high school diploma, GED or competency-based high school diploma prior to enrolling at UH Hilo.

Except for courses completed at other campuses in the University of Hawai'i system (for which any passing grade will be accepted), only those courses in which a grade of "C" or better was

earned will be accepted for transfer credit. When applicable, transfer credits may be counted towards the specific requirements of a program; otherwise, they will be counted as general electives. However, neither grade points nor grade point averages earned at other institutions are used in the computation of the UH Hilo cumulative grade point average. Graduate course work will not transfer to an undergraduate degree program.

Students transferring with any work done more than ten years prior to their admittance to UH Hilo may find such work subject to evaluation.

Official evaluations of transfer credit are completed after students enroll at the University. Students are encouraged to assist in this process by submitting course descriptions from previous colleges attended. Graduate course work will not transfer to an undergraduate degree program.

Effective Fall 1994, students who have earned an articulated Associate in Arts (A.A.) degree from a University of Hawai'i Community College shall be accepted as having fulfilled the general education core requirements at all other University of Hawai'i campuses. While an articulated A.A. degree satisfies general education core requirements, students must also complete all specialized lower-division, major, college and degree/graduation requirements. Additional campus-specific requirements, such as competency in a foreign language or writing-intensive courses may also be required. With planning, most, if not all, of these requirements may be incorporated into the Associate in Arts degree; if not, they are required in addition to the Associate in Arts degree.

Transcripts Required

Students who have enrolled at other colleges and universities may not disregard their records at such institutions. Students are required to file complete official transcripts of any and all academic work taken at other institutions. The final grades for courses-in-progress of provisionally admitted students are required to be on file at the Admissions Office no later than the deadline stated in the official letter of acceptance from the Admissions Office.

Failure to report previous college attendance and/or to file all required transcripts is sufficient cause for the cancellation of the student's admissions acceptance, denial of registration and/or dismissal from the University.

Admission of Returnees

Any student who terminates his/her enrollment at the University by withdrawing from all classes, by not registering for a semester, or by graduating, and who subsequently desires to return, must reapply for admission. If the student attended another college or university in the interim, he/she must reapply as a transfer student. Contact the Admissions Office for more information.

Admission of Unclassified Nondegree Students

A person who wishes to take courses at UH Hilo but does not wish, or does not qualify, to enroll in a degree program, may apply for admission as an unclassified student. An unclassified student is not a candidate for a certificate or a degree and will not be allowed to become a candidate unless he/she meets the admission standards required of students seeking a degree. Moreover, most types of financial aid programs will not be available to unclassified students. International visa students are not eligible for unclassified nondegree status. Contact the Admissions Office for more information. **All unclassified students must submit the common application form by the stated admission deadline.**

Admission of Auditors

Persons wishing to participate in University courses for informational instruction only may apply by completing the auditor's application form. Permission of the instructor is required. Auditors receive no credit, and they do not take course examinations. See "Classification of Students" for more information.

Early Admission Program

The Early Admission Program is intended to encourage highly motivated and academically talented high school juniors or seniors to advance in their schooling by supplementing their regular high school work with selected college courses. Interested applicants must comply with the regular admissions application procedure including application deadline dates. After consultation with their high school counselor and the University Admissions staff, qualified candidates may be admitted on a part-time, nondegree status. Acceptance is valid for a particular semester only. Continuation in the Early Admission Program depends upon the maintenance of a 2.0 grade point average (GPA) at the University and approval of the University in consultation with the high school counselor.

A student seeking early admission should submit the following items to the Admissions Office: a) a letter of recommendation from the principal, teacher, or the guidance counselor; b) a statement of purpose in applying for early admission, and the proposed class schedule; c) a statement from the Department of Education that the student will receive continuing counseling/support services from Department of Education personnel; d) a statement from the Department of Education that the student has exhausted all available secondary school education options; e) an official high school transcript and scores from the Scholastic Achievement Test.

Admission to Summer Session

Admission to Summer Session is open to high school graduates and individuals 18 years of age or older. Students registering for the Summer Session are not required to submit high school or college transcripts. Admission to the Summer Session does not constitute admission to a regular semester as a degree candidate. Students are expected to have satisfied prerequisites for the course(s) in which they enroll, and are reminded that grades earned in college courses during the summer may impact their admission to college in the future.

The Honors Program

The UH Hilo Honors Program is designed to motivate, challenge, and enrich students in order to promote their intellectual curiosity, nurture their intellectual independence, and deepen their sense of scholarship. In the Honors Program a group of students will be selected who are outstanding in their desire for learning, demonstrated ability and intellectual enthusiasm. These students will work in small groups or individually with research and teaching faculty from all UH Hilo colleges.

Students who will have fewer than 45 semester hours of credit at the point at which they would enter the program are invited to apply. Admission is upon consideration of the following: overall academic record; SAT and other test scores; extracurricular activities; work experience; recommendations; an application essay; and often an interview with the Honors director. For more information, contact the Honors director. Program requirements and course descriptions are listed under Honors in the departmental course listings.

Transfer Credit

Formal evaluations will be completed after students register for classes at UH Hilo. To assist with registration and advising, preliminary evaluations will be processed by the Admissions Office upon receipt of a non-refundable partial advanced tuition deposit. Prospective students may meet with an admissions officer for a personal preliminary evaluation prior to applying. This service is normally conducted in person.

To complete an evaluation, the Admissions Office must be in possession of the previous school's catalog, bulletin, handbook, or other institutional document which provides descriptions of the courses completed. It is the student's responsibility to ensure that course details are available to the Admissions Office. Students are advised to bring these descriptions with them when they enroll at UH Hilo.

International students must have original documents from their previous institution submitted to the Admissions Office which explains the course content, grading system, contact hours and calendar system. If this document is not in English, certified translations must be provided. Professional educational translation services are available in most locations. If outside the United States, please contact the nearest U.S. Embassy or Consulate for translation information.

Registration, Withdrawals and Other Changes

Regular Registration

The dates for registration are given in the UH Hilo Academic Calendar. Students will receive information about registration from the Registrar prior to the beginning of each semester.

Students may be barred from registering until they have cleared all academic or financial obligations. Registration is not complete unless all tuition and fees have been paid by the payment deadline.

Late Registration

The last date on which students may register in any term is indicated in the UH Hilo Academic Calendar. There is a fee for late registration.

Concurrent Registration

Students may enroll concurrently at two UH system campuses provided: 1) they are officially enrolled at the home campus for at least one-half of the credit load for the semester; 2) they are in good academic standing at both campuses; 3) they are registering for courses applicable to their academic program but not available at the home campus; 4) they have the approval of their home campus adviser and of the second campus; 5) they are registering for a maximum of six semester hours at the second campus. For specific application policy and forms, see the home campus adviser. A student who fails to comply with these conditions may be disenrolled from UH Hilo.

Course Changes

Students who wish to add a course or withdraw from a course may add or drop classes on the touch-tone/voice response registration system during the first five days of a fall or spring semester or the first three days of a regular summer session. Subsequent withdrawals after the Last Day to Add a Course must be processed on the Change of Registration form. There is a fee for course changes.

To Add a Course: Students may enroll in (ADD) any course through the first five (5) days of instruction, or the first three (3) days of a summer session. The last day to add a class is the same as the last day to register for credit as indicated in the UH Hilo Academic Calendar.

To Withdraw From a Course: Students may withdraw from (DROP) courses without academic penalty during the period described in the UH Hilo Academic Calendar. Students who complete the appropriate form during the prescribed period shall receive a grade of "W" for each official course withdrawal. Students who fail to withdraw officially during the period prescribed in the UH Hilo Academic Calendar risk receiving an "F" for such courses.

Complete Withdrawal

Students who wish to withdraw *completely* from the University of Hawai'i at Hilo should obtain the appropriate form from the Records Office and follow official procedures. Students who completely withdraw before the end of the third week of instruction will not have such classes as part of their academic record and should these students wish to return for any subsequent semester, they need

to submit an admissions application for readmission. Students who completely withdraw after the third week of instruction will receive a "W" for each of the courses in progress at the time of withdrawal. Those students who receive "W" need not submit an admissions application for the following semester.

Change of Major/College/Classified Status

Classified students who wish to change their major/college at UH Hilo should consult their faculty advisor before completing a Change of Program form. This form is available in the Admissions Office. However, *unclassified* students who wish to change into classified status must use the Common Application Form. Graduating students who wish to enroll in future semesters are required to re-apply for entry on the Common Application Form.

Transcripts

A student may obtain an official transcript of his/her academic record completed at the University of Hawai'i at Hilo by filing a written request at the Business Office. Students who took classes at Hawai'i Community College prior to summer session 1992 need to request their transcripts from UH Hilo. Transcripts of classes taken at HawCC from the summer session 1992 and thereafter must be obtained from HawCC. A fee is charged in advance for each transcript requested. Transcripts from other educational institutions become the property of UH Hilo and will not be released or copied for students. Students should arrange for such records to be sent from the original educational institutions.

Classification of Students

The following classifications are used to describe persons attending classes:

Full-time or Part-time Undergraduate Students: Students may register either part-time or full-time. Full-time students are those registered for a minimum of 12 semester hours. Part-time students are those registered for fewer than 12 semester hours.

Classified Students: Classified students are those who are candidates for a degree or education certificate. They are further subdivided in the College of Agriculture and the College of Arts and Sciences as follows: freshmen, 0-24 semester hours completed; sophomores, 25-54; juniors, 55-88; seniors, 89 or more; masters, post-baccalaureate. Freshmen and sophomores are lower-division students; juniors and seniors are upper-division students; masters are graduate students.

Unclassified Students: All students who are not candidates for a degree or education certificate are termed "unclassified students." Unclassified students do not qualify for financial aid.

Auditors: Auditors are persons who are permitted to attend classes with the instructor's consent and who have paid tuition for this privilege. The extent of their classroom participation is determined by the instructor. No credit is given for a course which is audited. No records are kept of the work done by auditors. *Auditors must complete the "Auditor's Form," provided by the Registrar, no earlier than the first day of instruction.*

Course Numbering System

The University of Hawai'i course numbering system applies to all units of the University. Portions relevant to the University of Hawai'i at Hilo are as follows:

Undergraduate Courses: All undergraduate courses are numbered from 100.

- 100-499 Courses which may be used to satisfy the requirements of a bachelor's degree.
 100-299 Initial or introductory courses (lower division).
 300-499 More advanced or specialized courses (upper division).
 600-699 Typically taken in first year of graduate study or first in sequence.
 700-798 Advanced graduate courses

(Courses numbered 300-499, 600-798, may be accepted by the Graduate Division of the University of Hawai'i at Manoa to satisfy graduate degree requirements.)

Course Listing Codes

The courses of the College of Agriculture and the College of Arts and Sciences are coded as to frequency of offerings:

- (S) every semester
 (Y) yearly
 (AY) alternate years
 (IO) infrequently offered

Credits, Grades, and Examinations

Work accomplished by students is recognized in terms of semester hours, grades, grade points, and grade point average (GPA).

Credits

Courses are assigned semester credit values determined by the number of hours of study per week required of the student in and outside of the classroom or laboratory. Although semester credit hours normally are fixed, some variable credit courses are offered. The amount of credit given for a variable credit course must be approved by the instructor and may not exceed the maximum semester hours that are defined for each course in the Course Descriptions section.

Maximum Credit Load: Students will usually not be allowed to register for more than 18 credits per semester, including work taken through the College for Continuing Education and Community Service. Students who wish to take more than 18 credits per semester must have a cumulative GPA of 3.0 or better, and the written permission of the advisor and the appropriate college dean is required. Under no circumstances shall a student be allowed to register for more than 24 semester hours in any semester.

Grades

Students receive one grade in each course taken. This grade combines the results of course work, tests, and final examinations. Grades are indicated by letters and plus/minus to each of which is assigned a certain value in grade points per semester hour of credit, as shown in the table below:

Grade	Significance	Grade Points Per Semester Hour of Credit
A	Excellent	4.0
A-		3.7
B+		3.3
B	Good	3.0
B-		2.7
C+		2.3
C	Satisfactory	2.0
C-		1.7
D		Poor

F	Failure	0.0
I	Incomplete	
CR	Credit	
NC	No Credit	
W	Withdrawal	

Incomplete Grade (I): A grade of "I" may be given for a course in which a student has failed to complete a small but important part of a semester's work, if the instructor believes that the failure was caused by conditions beyond the student's control and not by carelessness and procrastination.

Each student who receives an "I" should consult with the instructor to determine what work must be done to remove the "I". If this work is completed by the deadline specified in the UH Hilo Academic Calendar, the instructor will report a change of grade, taking the completed work into consideration. If this work is not completed by the deadline, the "I" grade will become a grade as determined by the instructor. The time limit for incomplete removal prevails whether or not the student maintains continuous enrollment.

An instructor who assigns a grade of "I" will complete a Report of Incomplete Work form indicating what work must be done to complete the requirements of the course. The instructor shall retain the original of the form and provide the student and division chairperson with a copy.

A grade of "I" must be removed by the instructor who assigned it, unless there are exceptional circumstances. In such circumstances, the division chairperson or the dean can report a change of grade.

Grade-point averages (GPA) are determined by dividing the total number of grade points by the total number of credits for which a student has received letter grades (excluding *I*, *CR*, *NC*, or *W*).

The *semester GPA* is calculated on any one semester's credits and grade points. The *cumulative GPA* is calculated on all such work taken at UH Hilo.

Grade Reports: Grade reports are currently mailed to students following the end of each semester and summer session. In the near future, students will access their grade reports through the touch-tone/voice response system.

Credit/No Credit (CR/NC): Students may take a maximum of two (2) courses per semester on a "Credit/No Credit" basis, provided that they are not on academic probation. Except for internship courses, such as Political Science 481, not more than 12 CR/NC semester hours may be counted toward the requirements for a degree, and courses completed on CR/NC option may not be used to satisfy the requirements for a major. Once the CR/NC option has been exercised for a course, the designation may not be removed. To qualify for "credit," the work of the student must be at least at the "C" (2.0) level. The CR/NC option must be exercised by the date designated for this purpose in the UH Hilo Academic Calendar.

Change of Grade: A student who believes an error has been made in the assignment of a grade must initiate contact with the faculty member involved, the division chair or dean prior to the last day of instruction of the next regular semester. Failure to act within this time period disqualifies the student from further consideration of the matter. Students requesting other changes in their academic record must present a written petition to their dean. The petition must include a statement of the requested action, justification and supporting documents. Generally, such actions will not be considered if more than one year has elapsed.

Credit-by-Examination

Students at the University of Hawai'i at Hilo are eligible for three forms of credit by examination. Policies relating to credit by examination are currently under review.

A Maximum of 30 Credits Earned Through Any of the Following Credit-by-Examination Alternatives May Be Applied Toward the Bachelor's Degree.

College Level Examination Program (CLEP)

The College Level Examination Program enables students to earn college credit by examination in areas approved by the disciplines. Regular students may take CLEP tests to demonstrate college level competency no matter when, where or how this knowledge has been acquired: through formal study, private reading, employment experiences, non-credit courses, military/industrial/business training, or advanced work in regular high school courses. This program gives individuals the opportunity to validate and receive credit for college-level knowledge they already possess.

Criteria for passing the CLEP general and subject examinations are determined by the appropriate academic discipline. A satisfactory score on these examinations, as determined by the appropriate academic division, yields course credit. The essay portion of the CLEP subject examinations may be required by the academic discipline.

Satisfactory scores for advanced standing for CLEP general examinations at UH Hilo are as follows:

Humanities	533	(3 semester hours)
Mathematics	550	(3 semester hours)
Natural Sciences	546	(3 semester hours)
Social Sciences	528	(3 semester hours)

No student is eligible to take CLEP general examinations for UH Hilo credit after reaching sophomore standing; i.e., the student must have completed not more than 24 semester hours of college work.

CLEP examinations are administered through the Counseling Office, Student Services Bldg., Room 201; (808) 974-7399. A CLEP fee must be paid before the CLEP examination can be administered. Students completing CLEP examinations with acceptable scores will receive advanced standing college credits which will be noted on their permanent academic record.

Advanced Placement Examination Program (AP)

Credit for comparable UH Hilo courses, as well as advanced standing, may be granted to students who complete Advanced Placement Tests offered by the College Entrance Examination Board. These exams are administered in high schools for students who have completed specific college-level courses in high school. Advanced placement credit decisions are made by the faculty of the appropriate UH Hilo academic discipline. Specific information about Advanced Placement Tests is available from the Counseling Office (Student Services Building, Room 201, or directly from the College Entrance Examination Board.

Credit by Institutional Examination

Students who are enrolled in the University and who believe they have mastered the content of a specific course may, with the permission of the chair of the appropriate academic division, be given an examination to determine whether credit should be given for the course. If approval is granted, the chair shall arrange for such an examination. The examination shall be as comprehensive as the usual "final examination," and must be designed to serve as the scholastic equivalent of the course. A satisfactory score will yield course credit in the subject and, at the discretion of the discipline, either a letter grade or the grade "CR" will be entered on the student's permanent academic record.

See the UH Hilo Academic Calendar for last day to apply for Credit by Exam in the fall and spring semesters.

A fee is required for each credit by institutional examination attempt. Where special tests, supplies, and/or materials are required, the student will bear the cost of such items.

Credit for Previous Foreign Language Study

Students who have learned Hawaiian or foreign languages outside of the University of Hawai'i may earn credit for their language in one of three ways: (1) through credit by institutional examination, if the language is taught at the College of Arts and Sciences; (2) through the Advanced Placement Examination Program; or (3) through the College-Level Examination Program. For more detailed information, students should consult with the Chairperson of Languages at the College of Arts and Sciences (Humanities Division, Edith Kanaka'ole Hall).

Native and bilingual speakers of a foreign language may not receive credit for courses in that language which are designed for non-native speakers.

Foreign Language Placement Tests

Students who previously studied foreign languages must consult with the Chairperson of Languages in order to determine the level at which they should enroll for language study.

General Certificate on Education Examination Held Overseas (GCEEO)

The College of Arts and Sciences accepts only "A"-level GCEEO Examination grades of "A," "B," and "C."

Credit for Education Received While in Military Service

Upon registration and submission of service documents and certificates, the Admissions Office will evaluate all educational experiences undertaken during military service in accordance with the credit recommendations of the Commission on Accreditation of Service Experiences and the Guide to Evaluation of Educational Experiences in Armed Forces. The Admissions Office will transmit its evaluation and recommendations to the relevant discipline for action as to the amount and kind of credits, if any, which are to be accepted. College courses satisfactorily completed through the Defense Activity for Nontraditional Educational Support (DANTES) may be accepted for advanced standing upon the recommendation of the Admissions Office and approval by appropriate faculty members. Credit will not be granted for basic or advanced individual training, occupational or vocational skills learned in the military.

Final Examinations

Final examinations normally are required in all courses except reading, research, and seminar courses. Final examinations are to be conducted during the final examination period specified in the UH Hilo Academic Calendar and Schedule of Courses or, in the case of modular courses only, on the last day of class.

No final examinations are allowed in the two weeks preceding the final examination period.

Repeating Courses

Students may repeat for letter grade only those courses in which the previous grade was "C-," "D," "F," or "NC." The only courses a student may repeat with a Credit/No Credit option are those in which the student previously received a grade of "NC" (No Credit). A course for which a student has already received credit may not be repeated through credit by institutional examination.

When a course is repeated, the GPA is computed by using the higher of the two grades received. If “W” is the “repeat” grade, the initial grade will be used to compute the GPA. All entries remain a part of the student’s permanent academic record.

Students may not enroll in a course and receive a grade (including W) more than three times. The exception to this policy are those courses identified in the catalog as repeatable.

Directed Reading and Directed Studies

Directed Reading and Directed Studies require the sponsorship of a member of the faculty and approval by the relevant department chair, and a description of the work to be undertaken which, in turn, requires planning in advance of the registration period. Sufficient time, therefore, must be allowed for such planning and for obtaining the necessary faculty approvals.

While a Directed Reading and/or Directed Studies project normally is student-initiated, early interaction with faculty is essential in the development of a mutually acceptable project description. At a minimum, such a description should contain an outline of the study topic, specification of the work to be done and the materials to be read, the credit to be given, the type and frequency of faculty-student contact, and a statement of the evaluative criteria to be used by the faculty member.

A student may register for not more than six (6) semester hours of Directed Reading and/or Directed Studies per semester with not more than three (3) semester hours granted for any single such course. Not more than twelve credits received from directed reading and/or directed studies courses may be applied toward a bachelor’s degree.

Academic Waivers and Substitutions

Any student may petition the appropriate college dean for a waiver or a substitution of any academic policy or regulation. The petition should include clear and convincing justification for the action requested.

The College of Arts and Sciences provides a special form for this purpose which may be obtained in any of the Division Offices.

Attendance, Satisfactory Progress, Academic Probation, Dismissal, Readmission, Bankruptcy

Attendance

Regular on-time attendance in class and laboratory sessions is expected of all students in the University. Unavoidable absences should be explained to the instructor involved. If a student finds it necessary to take a leave of absence during a semester, he/she should discuss this with each instructor and arrange to make up course requirements.

Students failing to attend classes during the Add/Drop period may be dropped from those courses to accommodate students on waiting lists.

Declaration of Major

All classified UH Hilo students must declare a major before registering for the junior year.

Satisfactory Academic Progress

Satisfactory academic progress is defined by the University of Hawai’i at Hilo as maintaining a cumulative GPA of at least 2.0. (Note: Financial aid and student employment programs define sat-

isfactory academic progress in terms of minimum cumulative GPA of at least 2.0 and a minimum number of credits completed each semester. Consult the Financial Aid Office if there is any doubt.)

Academic Warning

A student whose semester GPA is less than 2.0 will be notified and will be encouraged to seek academic counseling.

Academic Probation

A student whose cumulative GPA is less than 2.0 will be placed on academic probation.

Continued Academic Probation

Following a semester on academic probation, a student will be placed on continued academic probation if the GPA for the semester just completed was 2.0 or higher, but the cumulative GPA remains less than 2.0.

Academic Dismissal

A student whose semester and cumulative GPA is below 2.0 at the end of a semester of academic probation or continued academic probation will be dismissed from the University. He/she may appeal the academic dismissal in writing to the appropriate college dean within 10 working days of receiving the notification of academic dismissal.

Readmission

A student who has been dismissed from the University for academic reasons may apply for readmission one year after the date of academic dismissal. Such a student may be readmitted only under circumstances deemed acceptable to the appropriate college dean. Readmission is not automatic and will be granted only where there is evidence the student will perform satisfactorily.

Academic Bankruptcy

College of Arts and Science students may declare one semester of their career at UH Hilo as an academically bankrupt semester. All the courses taken in such a semester are assigned a final grade of “W,” regardless of whether passing grades are earned in some courses. The declaration must be made prior to graduation.

The College of Arts and Sciences Senate clarified that this semester would count toward the “3-peat” rule which limits to three the number of times a student may take a course. The faculty also recognized the following concerns brought about by such a policy:

If a student was receiving financial aid during the semester for which he/she declares academic bankruptcy, then the student is responsible for repaying such liability provided it still exists. If a student used the credits earned during the semester he/she declares academic bankruptcy to satisfy the requirements for a certificate and/or a degree of some kind, then this needs to be taken into account.

Other Provisions

Upon finding that a student is suffering from a physical or mental condition detrimental to the student and the University of Hawai’i at Hilo community, the Dean of Student Services will, on professional advice, recommend proper action to the appropriate college dean. The college dean may then request that the student be withdrawn officially, without prejudice or academic penalty.

Readmission is contingent upon review and recommendation by the college dean and the Dean of Student Services. Such a recommendation may include professional care.

Honors

Dean's List: Shortly after the close of each semester, the names of all full-time undergraduate students enrolled for baccalaureate degrees who earned 12 or more semester credits for a letter grade and achieved a GPA of 3.5 or above in the preceding semester will appear on the Dean's List.

Academic Dishonesty

Plagiarism, cheating, and collusion as defined in the University of Hawai'i at Hilo Student Conduct Code, Category 2, H, will not be tolerated. A faculty member may impose a grade sanction for academic dishonesty and may refer the matter to the Dean of Student Services in accordance with stipulations set forth in the University of Hawai'i at Hilo Student Conduct Code.

Academic Grievances

A student who believes that a faculty member has failed to meet reasonable standards of academic propriety may register a grievance. The "Student Academic Complaint Policy" has been established to provide guidelines and processes governing academic grievances. The student should first attempt to resolve the grievance on an informal basis with the faculty member. Should the grievance not be resolved at this level the student should discuss it with the division chairperson or the dean of the college. Copies of the academic grievance policy are available in the offices of the dean of each college and in the office of the Vice Chancellor for Academic Affairs.

Participation in Assessment Efforts

The University of Hawai'i at Hilo is committed to providing students the highest quality college experience. In order that we continue to improve programs and activities, students may be required to participate in university assessment efforts including university-wide surveys and surveys relating to general education or the student's major field of study. Responses will be kept confidential.

Graduation Requirements

A student must satisfy either the graduation requirements in effect at the time he/she first enrolls as a classified student in a specific UH Hilo degree or certificate program, or the requirements in effect at the time of his/her graduation. A student whose enrollment is interrupted for more than two consecutive semesters (excluding summer sessions) must complete the requirements in effect at the time the student is readmitted or the requirements in effect at the time of his/her graduation.

Academic Subject Certificate

An academic subject certificate is awarded to students who complete a prescribed academic program of study in Basic Hawaiian Culture, Environmental Studies, Hawaiian Language, Natural Sciences, Pacific Islands Studies, Performing Arts, Planning, Systems Modeling, or Women's Studies. Students may obtain information about specific program requirements from the chairpersons of the respective disciplines. Students may also work toward a University of Hawai'i Marine Option Program (MOP) Certificate.

Baccalaureate Degrees; General Requirements

Baccalaureate degrees are granted only to those students who (1) complete satisfactorily the program of courses prescribed for their majors; (2) earn at least a 2.0 cumulative GPA as well as a 2.0 GPA in courses required for the major and minor (if any); (3) earn a minimum of 30 semester hours in the college from which a degree is sought; (4) are registered and in attendance at the University of Hawai'i at Hilo during the semester or summer session in which the degree is granted; and (5) meet all requirements of their respective colleges and departments. All degree requirements must be met within the special limitations imposed upon directed reading/directed studies, Credit/No Credit and special topics courses, and the credit by examination policy. Students should consult the appropriate sections of this catalog or speak with their faculty advisors for more details on these limitations.

Application for Graduation

An application for graduation from any of the certificate or degree programs offered by the University of Hawai'i at Hilo must be cleared by the Records Office and submitted to the Business Office for processing by the deadline specified in the UH Hilo Academic Calendar. A non-refundable fee is charged upon application. Failure to file a graduation application by the specified deadline may result in a delay of graduation.

Honors at Graduation

Honors at the College of Agriculture or College of Arts and Sciences shall be determined in accordance with the cumulative GPA at the time of graduation in courses taken at the University of Hawai'i at Hilo in the following manner:

Honors	GPA of 3.50 to 3.69
High Honors	GPA of 3.70 to 3.84
Highest Honors	GPA of 3.85 to 4.00

Only students who earned at least 60 semester hours at UH Hilo and which were applicable toward a baccalaureate degree are eligible for graduation with honors. In addition, at least 54 of the 60 applicable semester hours must be taken for a letter grade.

Time Limits

Students transferring into UH Hilo with work done more than ten years prior to their admittance may find such work subject to evaluation.

Specific Degree Requirements

- Hawaiian/Asian/Pacific Requirement:** College of Arts and Sciences students are required to take a minimum of three semester hours in courses whose content emphasizes Hawai'i, Asia, or some Pacific region, culture, or theme. See list of these requirements under the General Education Requirements (Bachelor of Arts).
- Writing Intensive Course Requirement:** College of Arts and Sciences students are required to take Writing Intensive (WI) courses for graduation. At least one of these WI courses must be numbered 300 or above. Freshmen entering in 1995-96 must complete two WI courses. Freshmen entering in 1996-97 and later must complete three WI courses.

The WI requirement for transfer students varies depending upon year of entry and transfer credits accepted by UH Hilo. The number of WI courses required for transfer students is displayed below.

Status	FR	SOPH	JR	SR
No. accepted credit hours	0-24	25-54	55-88	89+
1995-96	2	2	1	0
1996-97 and later	3	3	2	1

- Upper-Division Requirement:** College of Arts and Sciences students are required to earn at least 45 semester hours in courses at the 300- and 400-level. Some majors (i.e. Art, Chemistry, Biology, Geology, Music, and Physics) require more than 15 semester hours in 100- and 200-level courses. For students with these majors, the requirement for 45 semester hours in 300- and 400-level courses will be reduced by the number of semester hours over and above 15 in 100- and 200-level courses required for the major.
- Major Requirements:** Requirements for specific majors are described in the course description section of each department. Students may pursue more than one academic major, provided that the requirements for each major are satisfied. In the case of majors that require identical courses, no more than nine semester hours of such courses may be counted as simultaneously fulfilling the unit requirements of both majors.
 Courses required for the major may also be used to fulfill the basic requirements and the area requirements.
- General Education Requirements:** The General Education requirements are designed to provide balance and coherence to the baccalaureate, liberal arts education. General Education is conceived as providing a series of experiences which enable the student to become a broadly educated person, with the skills for continuing self-education. It is designed, specifically, to provide the liberal arts college student and graduate with the means to:
 - Think clearly and logically; communicate effectively, both orally and in writing; find, examine, and utilize information; and carry out fundamental numerical operations.
 - Gain knowledge of one's body and mind; understand how human societies develop and operate; learn about the natural world—its forces, principles and occupants; and develop a familiarity with the cultural heritage and contributions of world cultures including their art, music, literature, and science.
 - Develop an understanding and awareness of the principles, methods, and thought processes utilized in academic/intellectual inquiries.
 - Recognize and understand the interdependence between mankind's view of the biological and physical continuum and the development of culture, literature, and aesthetics.

Students are cautioned that, in a few instances, a single course has been approved as satisfying more than one of the General Education requirements. However, students completing such a course may only receive credit toward a single General Education requirement. They will be offered their choice of which requirement is satisfied and will be expected to fulfill the other requirement(s) with other courses.

General Education Requirements for Transfer Students

Effective Fall 1994, students transferring with an articulated A.A. degree from a University of Hawai'i community college will be deemed to have fulfilled general education requirements unless specific course prerequisites are needed for a given major or specialty. Students transferring into the College of Arts and Sciences

with a Bachelor of Arts degree (excluding other baccalaureate degrees) from an accredited college or university will be deemed to have fulfilled the General Education requirements, unless specific course prerequisites are needed in a given major.

All other college transfer students must fulfill the General Education requirements appropriate to their major as stated in this catalog. Students transferring into the College of Arts and Sciences from outside UH Hilo with 30 or more semester hours of credit, or the equivalent thereof, from an accredited college or university will have their transfer credits evaluated on the basis of course subject area, rather than specific course equivalencies, for the purpose of fulfilling General Education requirements.

Students transferring into the College of Arts and Sciences, regardless of the number of transfer credits accepted, must earn a minimum of 25 percent of the required semester credits for their major(s), minor(s), and certificate(s) at UH Hilo.

Second Degree/Concurrent Degree/Double Major Policy

Students may earn more than one degree at UH Hilo under the following conditions:

- In order to earn a second degree which is different from the first degree earned or in process (i.e. when a student with or pursuing a B.B.A wishes to earn a B.A.):
 - A minimum of 30 credits must be earned after the first degree has been awarded.
 - No more than 9 semester credits may be applied from the major of the first degree to fulfill requirements for the major of the second degree.
 - All degree requirements must be fulfilled for both degrees.
 - Students pursuing a second baccalaureate degree are classified as seniors.
- In order to earn a second degree which is identical to the first degree earned (i.e. a student with a B.A. wishes to earn a second B.A.):
 - The major for the second degree must be different from that of the first degree.
 - A student whose prior degree was a B.A. from an accredited college may be exempted from the General Education requirements of the second B.A. degree excluding any course prerequisites required for the new major.
 - Students pursuing a second baccalaureate degree are classified as seniors.
- In order to earn two or more degrees concurrently:
 - The degrees sought must be different (i.e. Students may not earn two B.A. degrees concurrently).
 - The two degrees must be in different majors.
 - All degree requirements must be fulfilled for each degree.
- Students may declare a "double major" in pursuit of one degree. (i.e. Students may receive a B.A. with a double major in Hawaiian Studies and Geography or a B.S. with a double major in Biology and Geology). The conditions under which double majors are awarded are:
 - No more than 9 semester credits which satisfy the requirements of both majors may overlap.
 - Requirements for both majors must be completed before the degree is awarded.

General Education Requirements (Bachelor of Arts)

To earn a bachelor of arts degree, a student must acquire 120 semester hours, complete the earlier listed general and specific requirements for a baccalaureate degree offered by the University of Hawai'i at Hilo, complete the General Education requirements, and complete major requirements.

Communication (6 semester hours)

1. English composition - this requirement must be fulfilled before completing 24 credits. All entering Freshmen and continuing or transfer students without English 100 must take the UH Hilo/UH Manoa Writing Placement Examination.

English: Eng 100, 100T, or ESL 100

2. Speech Communication: SpCo 151

Quantitative/Logical Reasoning (6 semester hours)

1. Option 1 - Select two courses

Mathematics: Math 100-498 (except 104L, 205L, 206L, 197-199V, 299V, 399V)

2. Option 2 - Select one course from A and one course from B

A. Mathematics: Math 100-498 (except 104L, 205L, 206L, 197-199V, 299V, 399V)

B. Philosophy Phil 209
Psychology Psy 213
Sociology Soc 280
Nursing Nurs 280

World Cultures (6 semester hours)

Select two courses:

Anthropology: Anth 100, 170 (same as Mus 170)
English: Eng 253, 253W, 254
Geography: Geog 102
History: Hist 151, 152
Honors: Hon 200, 201, 202
Music: Mus 170 (same as Anth 170)
Religious Studies: RelS 152, 153

Humanities (12 semester hours)

Complete three of three requirements.

1. The Arts - Select one course

Anthropology: Anth 170 (same as Mus 170)
Art: Art 101, 121, 122, 123, 270, 280
Drama: Dram 170
English: Eng 370
Hawaiian Studies: HawS 175, 176 (same as Mus 175, 176)
Music: Mus 160, 163, 170 (same as Anth 170), 175, 176 (same as HawS 175, 176), 180

2. Thought/ Knowledge/Values - Select one course

Hawaiian Studies: HawS 111, 211, 213
Honors: Hon 200, 201, 202
Philosophy: Phil 100, 101, 200, 201, 220, 230
Religious Studies: RelS 152, 153
Women's Studies: WS 151

3. Literature /Languages - Select two courses

Anthropology: Anth 121 (same as Ling 121)
Chinese: Chns 101, 102
English: Eng 200, 203, 251, 252, 253, 253W, 254
French: FR 101, 102
Linguistics: Ling 102, 121 (same as Anth 121)
Hawaiian: Haw 101, 102, or 107
Honors: Hon 200, 201, 202
Japanese: Jpns 101, 102, or 105, or 131, 132
Spanish: Span 101, 102

Social Sciences (12 semester hours)

Select one course from each of four different disciplines:

Anthropology: Anth 100, 115, 121 (same as Ling 121)
Linguistics: Ling 121* (same as Anth 121)
Economics: Econ 100, 200, 201
Geography: Geog 101, 103, 105
History: Hist 151, 152, 281, 282
Political Science: Pols 101, 102, 220, 230
Psychology: Psy 100
Sociology: Soc 100, 240, 260

* Ling 121 only counted as Anthropology course

Natural Sciences (10 semester hours)

1. Lectures - Select courses from three of the following disciplines: (for 9 credits)

Astronomy: Astr 110, 130, 180
Biology: Biol 101, 150, 153, 156, 157, 171 (same as Mare 171)
Chemistry: Chem 111, 114, 124
Computer Science: CS 100
Geology: Geol Geol 111, 200
Marine Science: Mare 171* (same as Biol 171), 201
Physics: Phys 106, 115, 170

* Mare 171 only counted as Biology course

2. Laboratories - Select one of the following: (for 1 credit)

Astronomy: Astr 110L
Biology: Biol 101L, 150L, 153L
Chemistry: Chem 111L, 114L, 124L
Geology: Geol 111L, 200L
Physics: Phys 170L

Additional Requirements

The Hawaiian/Asian/Pacific requirement is not part of the General Education requirement. It is a separate requirement meant to ensure that all students take a minimum of three semester hours in courses whose content emphasizes Hawai'i, Asia, or some Pacific region, culture or theme. Courses used to satisfy this requirement may also be used for General Education and your major. Select one course from the following:

Anthropology: Anth 170, 200 (b) (c) (d) (e), 347, 355, 356, 357, 358, 385, 386, 387, 390, 435
Art: Art 280, 380, 381, 385
Biology: Biol 156, 156L, 190, 309
Chinese: Chns 101, 102, 201, 202
Economics: Econ 310, 330, 381, 410
English: Eng 347, 365

Geography:	Geog 101L, 120, 309, 326, 332, 335, 350, 385, 435, 496
Geology:	Geol 205
Hawaiian:	Haw 100, 101, 102, 107, 201, 202, 207, 303, 304, 403, 404, 453, 454, 455
Hawaiian Studies:	HawS 111, 175, 176, 194, 205, 211, 213, 294, 305, 361, 394, 462, 471, 472, 473, 474, 494, 497
History:	Hist 310, 311, 312, 313, 315, 374, 417, 418, 476
Honors	Hon 202, 203
Interdisciplinary Studies:	IS 251
Japanese:	Jpns 101, 102, 105, 201, 202, 301, 302, 340, 365, 401, 402, 425, 451, 452, 481, 482
Japanese Studies:	JpSt 101, 102, 201, 202, 301, 302, 310, 311, 315, 340, 356, 358, 365, 375, 381, 390, 399, 401, 402, 417, 425, 430, 450, 451, 452, 481, 482, 494
Linguistics:	Ling 347, 451, 452, 453, 454, 455
Management:	Mgt 333
Marine Science:	Mare 190, 371L, 372
Music:	Mus 170, 175, 176, 375, 470
Nursing:	Nurs 350
Philosophy:	Phil 101, 300, 301, 302, 430, 435, 450
Physics:	Phys 120
Political Science:	Pols 102, 255, 351, 402, 403
Psychology:	Psy 360
Religious Studies:	RelS 152, 302, 303, 304, 315, 350, 385, 390, 410, 430, 435, 450
Sociology:	Soc 480

Note: The Hawaiian/Asian/Pacific requirement is unique to the College of Arts and Sciences. Students graduating with a major in the College of Agriculture are exempt from this requirement.

Writing Intensive (WI) Course Requirement

Freshmen entering in 1995-96 must complete two WI courses. Freshmen entering in 1996-97 and later must complete three WI courses. At least one of the WI courses must be numbered 300 or above. Writing intensive courses are designated in the current schedule of classes as WI. See Specific Degree Requirements for WI courses related to transfer students.

General Education Requirements (Bachelor of Business Administration)

To earn a bachelor of business administration degree, a student must acquire 124 semester hours, complete the earlier listed general and specific requirements for a baccalaureate degree offered by UH Hilo, and satisfy the following Pre-Business and Professional BBA degree requirements.

Pre-Business Program

I. General Education Requirements (52 semester hours)

A. Communication Skills (6 semester hours)

1. English composition requirement (Eng 100) must be fulfilled before completing 24 credits. All entering Freshmen and continuing or transfer students without English 100 must take the UH Hilo/UH Manoa Writing Placement Examination.
2. SpCo 151.

B. Quantitative and Logical Reasoning (6 semester hours)

Math 115 and QBA 260.

C. World Cultures (6 semester hours)

Courses selected from the following: Anth 100; Anth/Mus 170; Eng 253, 253W, 254; Geog 102; Hist 151, 152; Hon 200, 201, 202; Rels 152, 153.

D. Humanities (12 semester hours)

1. The Arts (3 semester hours): Art 101, 121, 122, 123, 270, 280; Dram 170; Eng 370; Haws/Mus 175, 176; Anth/Mus 170; Mus 160, 163, 180.
2. Thought, Knowledge and Values (3 semester hours): Haws 111, 211, 213; Hon 200, 201, 202; Phil 100, 101, 200, 201, 220, 230; Rels 152, 153; WS 151.
3. Literature and Languages (6 semester hours): Anth/Ling 121; Ling 102; 203, Eng 200, 203, 251, 252, 253, 253W, 254; Fr 101, 102; Haw 101, 102, or 107; Hon 200, 201, 202; Jpns 101, 102 or 105, 131, 132; Span 101, 102.

E. Social Sciences (12 semester hours)

Econ 200 and 201 and one course from two of the following disciplines:

Anthropology 100, 115, 121 (also Ling 121)
 Geography 101, 103, 105
 History 151, 152
 Political Science 101, 220, 230
 Psychology 100
 Sociology 100, 240, 260

F. Natural Sciences (10 semester hours)

One course from three of the following disciplines (one course must be a course with a laboratory):

Astronomy 110, 110L, 130, 180
 Biology 101, 101L, 150, 150L, 153, 153L, 156, 157, 171
 Chemistry 111, 111L, 114, 114L, 124, 124L
 Computer Science 100
 Geology 111, 111L, 200, 200L
 Marine Science 201
 Physics 106, 115, 170L

II. Pre-Business Core Requirements (15 semester hours)

Acc 250, 251; CS 101; Eng 309; Mgt 240

III. Additional Requirements

- A. Hawaiian/Asian/Pacific requirements as listed under the Bachelor of Arts Degree Additional Requirements

- B. Writing Intensive (WI) Course requirements as noted under the Bachelor of Arts Degree Additional Requirements

Professional Business Program

To be admitted into the upper-division BBA degree program, and to begin the Business Core, candidates must have completed Math 115 and QBA 260; Eng 100, 309; SpCo 151; Econ 200, 201; Acc 250, 251; CS 101; and Mgt 240 with a grade of AC@ or better. In addition, students must have completed 55 hours of university level coursework with a minimum GPA of 2.5.

I. Business CORE Requirements (30 semester hours)

- A. Mgt 300, 333; Mkt 310; Fin 320; QBA 360, 361, 362.
- B. Econ 300 or Econ 340.
- C. Mgt 423 or Soc 323 or Phil 425.
- D. Mgt 490 or Mgt 491.
- E. Each Business CORE course must be completed with a grade of "C" or better.

II. Business Electives (15 semester hours)

Students are to select, with the assistance or consent of the advisor, at least 15 semester hours of Business electives at the 300-400 level to be completed during their junior and senior years. Three semester hours of Business electives may be 300-400 level Economics courses. Students must achieve a 2.0 cumulative GPA for all Business elective courses.

III. General Electives (12 semester hours)

Students may select 12 semester hours of general elective courses in consultation with their advisor.

Total Semester Hours Required for the BBA Degree: 124

Academic Minor Option

BBA candidates may pursue an academic minor in a non-Business field by using all General Elective hours to fulfill the minor requirements.

Residence Requirement

BBA candidates must complete at least 24 hours of the credits used to satisfy upper-division Business core and Business elective requirements while in residence at UH Hilo.

Business Administration Minor (21 semester hours)

Students pursuing non-Business degrees may minor in Business by completing the following courses with a grade of at least "C" in each course:

Acc 250 and 251; Econ 201; Mgt 300 and 333; Mkt 310; and Fin 320.

General Education Requirements (Bachelor of Science Programs)

Bachelor of Science in Biology: To earn a bachelor of science degree in biology a student must acquire a minimum of 123 semester hours, must complete the earlier listed general and specific requirements for a baccalaureate degree offered by UH Hilo, and must satisfy the following requirements:

I. General Education Requirements (65 semester hours)

A. Communication Skills (9 semester hours)

1. English composition requirement (Eng 100 must be fulfilled before completing 24 credits.
2. SpCo 151
3. Eng 309

B. Quantitative and Logical Reasoning (8 semester hours)

Math 205, 205L, 206, 206L

C. World Cultures (6 semester hours)

Selected from Anth 100, Anth/Mus 170; Eng 253, 253W, 254; Geog 102; Hist 151, 152; Hon 200, 201, 202; Rels 152*, 153

D. Humanities (12 semester hours)

1. The Arts (3 semester hours) Selected from Art 101, 121, 122, 123, 270, 280*; Dram 170; Eng 370; Haws/Mus 175*, 176*; Anth/Mus 170*; Mus 160, 163, 180
2. Thought, Knowledge, and Values (3 semester hours) Selected from Haws 111*, 211*, 213*; Hon 200, 201, 202; Phil 100, 101*, 200, 201, 220, 230; Rels 152*, 153; WS 151
3. Literature and Languages (6 semester hours) Selected from Anth/Ling 121; Ling 102; Eng 200, 203, 251, 252, 253, 253W, 254; Fr 101, 102; Haw 101*, 102*, 107*; Hon 200, 201, 202; Jpns 101*, 102*, 105*, 131-132; Span 101, 102

E. Social Sciences (12 semester hours)

One course each from four of the following disciplines:

1. Anth 100, 115, 121, Ling 121
2. Econ 100, 200, 201
3. Geog 101, 103, 105
4. Hist 151, 152, 241*, 242*
5. Pols 101, 220, 230
6. Psy 100
7. Soc 100, 240, 260

F. Natural Sciences (18 semester hours)

Phys 170, 170L, 171, 171L; Chem 124, 125

II. Biology Program Requirements (58 semester hours) in addition to those counted for General Education

A. Biology (40 semester hours)

Biol 125, 150-150L, 153-153L, 157, 275-275L, 281, 380, 410-410L, 415-415L, 466-466L, 495A, and 495B

B. Chemistry (19 semester hours)

Chem 124L, 125L, 241-241L, 242-242L, 330-330L, 350-350L or 351-351L

III. Additional Requirements

- A. Minimum 2.0 cumulative GPR overall, and in courses required for the major
- B. 45 upper division credits
- C. Hawaiian-Asian Pacific requirement*

D. Writing Intensive (WI) Course Requirements as noted under the Bachelor of Arts Degree Additional Requirements

*Item meets the Hawaiian/Asian/Pacific requirement. See list under the Bachelor of Arts Degree Additional Requirements for other courses.

Bachelor of Science in Computer Science: To earn a bachelor of science degree in computer science, a student must acquire 126 semester hours, must complete the earlier listed general and specific requirements for a baccalaureate degree offered by UH Hilo, and must satisfy the following requirements:

I. General Education Requirements (65 semester hours)

A. Communication Skills (9 semester hours)

1. English composition requirement (Eng 100) must be fulfilled before completing 24 credits. All entering Freshmen and continuing or transfer students without English 100 must take the UH Hilo/UH Manoa Writing Placement Examination.
2. SpCo 151
3. Eng 309

B. Quantitative and Logical Reasoning (8 semester hours)

Math 205, 205L, 206, 206L

C. World Cultures (6 semester hours)

Selected from Anth 100, Anth/Mus 170; Eng 253, 253W, 254; Geog 102; Hist 151, 152; Hon 200, 201, 202; Rels 152*, 153

D. Humanities (12 semester hours)

1. The Arts (3 semester hours) Selected from Art 101, 121, 122, 123, 270, 280*; Dram 170; Eng 370; Haws/Mus 175*, 176*; Anth/Mus 170*; Mus 160, 163, 180
2. Thought, Knowledge, and Values (3 semester hours) Selected from Haws 111*, 211*, 213*; Hon 200, 201, 202; Phil 100, 101*, 200, 201, 220, 230; Rels 152*, 153; WS 151
3. Literature and Languages (6 semester hours) Selected from Anth/Ling 121; Ling 102; Eng 200, 203, 251, 252, 253, 253W, 254; Fr 101, 102; Haw 101*, 102*, 107*; Hon 200, 201, 202; Jpns 101*, 102*, 105*, 131B132; Span 101, 102

E. Social Sciences (12 semester hours)

One course each from four of the following disciplines:

1. Anth 100, 115, 121, Ling 121
2. Econ 100, 200, 201
3. Geog 101, 103, 105
4. Hist 151, 152
5. Pols 101, 220, 230
6. Psy 100
7. Soc 100, 240, 260

F. Natural Sciences (18 semester hours)

Phys 170, 170L, 171, 171L; Chem 124, 125

II. Computer Science Program Requirements (55 semester hours)

A. Mathematics (9 semester hours)

Math 311, 321, 407

B. Computer Science Required Courses (37 semester hours)

CS 150, 151, 215, 266, 321, 410, 420, 430, 450, 460, 461, 470, 495

- C. Computer Science Electives (9 semester hours)
Two courses from CS 411, 421, 431, 451, 471, and one 400 level computer science course not previously selected.

III. **General Electives** (6 semester hours)
Any course offered by UH Hilo College of Arts and Sciences not used to fulfill the above requirements.

IV. **Additional Requirements**

- A. Minimum 2.0 cumulative GPR and 2.0 or better in every major course as stipulated in part II.
B. 45 Upper Division credits
C. Hawaiian/Asian/Pacific Requirement*
D. Writing Intensive (WI) Course Requirements as noted under the Bachelor of Arts Degree Additional Requirements

*Item meets the Hawaiian/Asian/Pacific requirement. See list under the Bachelor of Arts Degree Additional Requirements for other courses.

Cooperative Education: A cooperative plan of education is available for students to gain valuable work experience. The Cooperative Education Seminar course, CS 295, must be taken during the sophomore year to qualify for a cooperative position.

Minor:

Requirements for the Computer Science minor are listed in the departmental section of the catalog.

Bachelor of Science in Geology: To earn a bachelor of science degree in geology, a student must acquire 120 semester hours, complete the earlier-listed general requirements for any baccalaureate degree, and satisfy the following requirements.

- I. **General Education Basic Requirements** (23 semester hours)
- A. **Communication Skills** (9 semester hours)
1. English composition (Eng 100); must be fulfilled before completing 24 credits. All entering freshmen and continuing or transfer students without English 100 must take the UH Hilo/UH Manoa Writing Placement Examination.
 2. SpCo 151
 3. Eng 309
- B. **Quantitative and Logical Reasoning** (8 semester hours)
Math 205, 205L, 206, 206L
- C. **World Cultures** (6 semester hours)
Same as listed earlier for the bachelor of arts degree requirements.
- II. **General Education Area Requirements** (44-46 semester hours)
- A. **Humanities** (12-14 semester hours)
Same as listed earlier for the bachelor of arts degree requirements.
- B. **Social Sciences** (12 semester hours)
Same as listed earlier for the bachelor of arts degree requirements.
- C. **Natural Sciences** (20 semester hours)
Chem 124-124L, 125-125L
Phys 170-170L, 171-171L

III. **Geology Major Requirements** (41 semester hours)

- A. Geol 111-111L, 112-112L, 210, 211, 220, 330, 340, 342, 370, 495A, 495B
B. 9 semester hours credit in Geol courses at the 300 and/or 400 level

IV. **General Electives** (10-12 semester hours)
Any course offered by the UH Hilo College of Arts and Sciences not used to fulfill the above requirements.

V. **Additional Requirements**

- A. A grade of "C" (2.0) or better in any course requirement listed in III above.
B. Hawaiian/Asian/Pacific requirement as listed earlier for the bachelor of arts degree requirement
C. Writing Intensive (WI) Course Requirements as noted under the Bachelor of Arts Degree Additional Requirements
D. 30 semester hours at the 300 and/or 400 level

Recommended courses for students planning graduate study include one year of foreign language and a summer field course in geology.

Bachelor of Science in Nursing: To earn a bachelor of science degree in nursing, a student must acquire 133 semester hours, must complete the general and specific requirements for a baccalaureate degree at UH Hilo, and must satisfy the following Pre-Nursing, Pre-Core, and Nursing degree requirements.

Pre-Nursing

I. **General Education Requirements** (62 semester hours)

- A. **Communication Skills** (6 semester hours)
1. English 100; all entering Freshmen and continuing or transfer students without English 100 must take the UH Hilo/UH Manoa Writing Placement Examination.
 2. SpCo 151
- B. **Quantitative and Logical Reasoning** (6 semester hours)
1. Math 103 or higher
 2. Statistics: Psy 213, Bio 180, or Soc/Nurs 280
- C. **World Cultures** (6 semester hours)
1. History 151, 152
- D. **Humanities** (12 semester hours)
1. The Arts (3 semester hours):
Art 101, 121, 122, 123, 270, 280; Dram 170; Eng 370;
Haws/Mus 175, 176; Anth/Mus 170; Mus 160, 163, 180;
 2. Thought, Knowledge and Values (3 semester hours):
Haws 111, 211, 213; Hon 200, 201, 202; Phil 100, 101,
200, 201, 220, 230; Rels 152, 153; WS 151;
 3. Literature and Languages (6 semester hours):
Anth/Ling 121; Ling 102; Eng 200, 203, 251, 252, 253,
253W, 254; Chns 101, 102; Fr 101, 102; Haw 101, 102 or
107; Hon 200, 201, 202; Jpns 101, 102 or 105, 131B132;
Span 101, 102.
- E. **Social Sciences** (12 semester hours)
1. Anth 100
 2. Psy 100
 3. Psy 320
 4. Social Science*

F. Natural Sciences (18 semester hours)

1. Chem 114 or high school chemistry passed with a "C" grade or better
2. Chem 141
3. Bio 243, 243L
4. Bio 244, 244L
5. Bio 275, 275L

*Course other than anthropology, history, or psychology. See Bachelor of Arts General Education Area Requirements listing of approved courses.

II. Pre-Core Requirements (6 semester hours)

1. Nurs 203 (3)
2. Nurs 475 (3)

Nursing Requirements (67 semester hours)

- | | | |
|----|---|-------|
| I. | Nurs 347 Health Assessment | (3) Y |
| | Nurs 347L Health Assessment Practicum | (1) Y |
| | Nurs 350 Transcultural Care and Health Promotion* | (3) Y |
| | Nurs 351 Issues and Trends in Nursing Care | (2) Y |
| | Nurs 353 Nursing Concepts and Skills | (3) Y |
| | Nurs 353L Nursing Concepts and Skills Practicum | (3) Y |
| | Nurs 355 Adult Health Care I | (2) Y |
| | Nurs 355L Adult Health Care I Practicum | (3) Y |
| | Nurs 356 Parent-Newborn Health Care | (2) Y |
| | Nurs 356L Parent-Newborn Health Care Practicum | (3) Y |
| | Nurs 357 Mental Health Care | (2) Y |
| | Nurs 357L Mental Health Care Practicum | (3) Y |
| | Nurs 358 Nursing Research | (3) Y |

(*Satisfies HAP requirement)

- | | | |
|-----|---|-------|
| II. | Nurs 410 Community Health Care | (2) Y |
| | Nurs 410L Community Health Care Practicum | (4) Y |
| | Nurs 450 Client Care Management | (2) Y |
| | Nurs 455 Adult Health Care II | (3) Y |
| | Nurs 455L Adult Health Care II Practicum | (5) Y |
| | Nurs 456 Parent-Child Health Care | (2) Y |
| | Nurs 456L Parent-Child Health Care Practicum | (3) Y |
| | Nurs 457 Advanced Health Care | (2) Y |
| | Nurs 457L Advanced Health Care Practicum | (3) Y |
| | Nurs 460 Nursing Care Management | (2) Y |
| | Nurs 468 Nurse Leadership: Politics of Caring | (2) Y |

Nursing Electives (3)

- | | | |
|--|--|--------|
| | Nurs 370 Transcultural Nursing: Implications for Nursing Practicum | (3) Y |
| | Nurs 371 Computers and Nursing | (3) Y |
| | Nurs 394 Topics in Nursing | (3) I |
| | Nurs 399 Directed Study | (3) S |
| | Nurs 470 Transcultural Nursing: International Focus | (3) AY |
| | Nurs 471 Intro to Rural/Home Health Care | (3) AY |
| | Nurs 472 Intro to Oncology Nursing Care | (3) I |
| | Nurs 473 Intro to Rehabilitation Nursing Care | (3) I |
| | Nurs 474 Intro to Intensive Care Nursing Care | (3) I |
| | Nurs 475 Intro to Gerontology Nursing Care | (3) I |
| | Nurs 494 Advanced Topics in Nursing | (3) I |
| | Nurs 499 Directed Study | (1B3)S |

Program Options: Students have two program options to earn the bachelor of science degree in nursing:

Option 1

Students may enter the Generic BSN program whereby two years are spent fulfilling UH Hilo general education and pre-nurs-

ing or pre-core requirements. Nursing courses are introduced in the third year upon formal admission into the nursing program on a competitive available basis. (See BSN admissions criteria.)

Option 2

Students may enter the RN/BSN completion program whereby an associate degree in nursing has already been attained. This program provides the RN/BSN candidate the option for educational advancement. Nursing courses are introduced along with general education or pre-core requirements which were not satisfied by the basic associate degree requirements as listed. Students begin the course of study upon formal admission into the nursing program on a selective space available basis. (See BSN admissions criteria.)

For additional information, call 974-7760.

Bachelor of Science in Agriculture: To earn a bachelor of science in agriculture degree, a student, in addition to completing the earlier listed general requirements for any baccalaureate degree, must fulfill the following requirements. All natural science courses must include both lecture and lab.

I. Agribusiness Specialty**A. Agriscience Requirements** (70 semester hours)

1. AgBu/AgEc/Econ Foundation (18 semester hours):
 - a. AgBu 299/Ag 299, 320/321; AgEc 322, 330/Econ 380
 - b. AgBu/AgEc/Econ Electives: 6 semester hours.
2. Agriscience Foundation (16/17 semester hours):
 - a. Ag 497.
 - b. One course from 5 of the following Agriscience areas: AgEn/Soil/Ento/PPat/Hort/AnSc/Aqua.
3. Business Foundation (15 semester hours): Acc 250, 251; Mgt 240, 300; Mkt 310
4. Career Goals: 20/21 semester hours in either Agriscience or Business.

B. General Education Requirements (53 semester hours)

1. Natural Science Foundation (20/22 semester hours):
 - a. Chem 111/114; Biol 101/150/153; Math 205, 205L; Math 102/115/121; CS 110/AgBu 110
 - b. Natural Science Elective (3 semester hours)
2. Social Science/Humanities Foundation (27 semester hours):
 - a. Econ 200/300; Econ 201/301;
 - b. Social Science elective (3 semester hours).
 - c. Eng 100; Eng 309; SpCo 151.
 - d. Humanities Electives (9 semester hours).
3. Other Electives (4/6 semester hours).

II. Agroecology and Environmental Quality Specialty**A. Agriscience Requirements** (43 semester hours).

1. Environmental Foundation (21 semester hours): Aqua 425, Ento 374, For 202, Hort 481, Ag 230, Agro 410, Soil 461.
2. Agriscience Foundation (22 semester hours): Ag 299, Ag 497, AgBu 110, AnSc 141, Ent 304, Hort 262, PPat 301, Soil 304.

B. General Education Requirements (80 semester hours)

1. Natural Science Foundation (35 semester hours): Biol 150, Biol 153, Biol 281, Chem 124, Chem 125, Chem 141, Geol 200 or Geog 326, Math 121, Phys 106.
2. Social Science/Humanities Foundation (18 semester hours): Econ 201 or AgEc 201, Econ 380, PolSc 335, Eng 100, Eng 309, SpCo 151.

3. Other Electives including College of Agriculture courses (27 semester hours).

III. Animal Science Specialty

Production Option

- A. **Agriscience Requirements** (62 semester hours).
 1. Animal Science Foundation (27 semester hours):
 - a. AnSc 141, 244, 321, 350, 445, 450.
 - b. 9 semester hours from the following courses: AnSc 342/351/353/354/355.
 2. Agriscience Foundation (25 semester hours): Ag 299, 497; AgBu 110; AgEc 322/330/430; Agron 410; AgEn 231; Ento 304; Hort 262; Soil 304.
 3. Elective Agriculture Courses (10 semester hours).
- B. **General Education Requirements** (61 semester hours):
 1. Natural Science Foundation (25 semester hours): Biol 150, 153, 275; Chem 124, 125; Math 121.
 2. Social Science/Humanities Foundation (21 semester hours): Acc 250/AgEc 221; Econ 201/AgEc 201; Eng 100, 309; SpCo 151, 251; Soc. Sci.
 3. Other Electives including College of Agriculture courses (15 semester hours).

Pre-Veterinary Option

- A. **Agriscience Requirements** (34 semester hours).
 1. Animal Science Foundation (27 semester hours):
 - a. AnSc 141, 244, 321, 350, 445, 450.
 - b. 9 semester hours from the following courses: AnSc 342/351/353/354/355.
 2. Agriscience Foundation (7 semester hours): Ag 299, 497; AgBu 110
- B. **General Education Requirements** (89 semester hours):
 1. Natural Science Foundation (49/51 semester hours): Biol 101/153, 150, 275, 410; Chem 124, 125, 241, 242; Phys 106, 107; Math 121, 104 and 104L/104F and 104G/205 and 205L.
 2. Social Science/Humanities Foundation (18 semester hours): Eng 100, 309; SpCo 151, 251; Econ 100/200/201; Soc. Sci.
 3. Other Electives including College of Agriculture courses (22/20 semester hours).

IV. Aquaculture Specialty

- A. **Aquaculture/Agriscience** (35 semester hours).
 1. Aquaculture Foundation (19 semester hours): AgEn 400; Aqua 262, 350, 351, 425, 475
 2. Agriscience Foundation (16 semester hours): AgBu 320; Ag 299, 497; AnSc 244, 321, 445
- B. **General Education** (88 semester hours).
 1. Natural Science Foundation (39 semester hours): Biol 150, 153, 275, 281, 484; Chem 124, 125, 141; Math 121; Phys 106.
 2. Social Science/Humanities Foundation (18 semester hours):
 - a. Econ 201/AgEc 201; Eng 100, 309; SpCo 151.
 - b. Two courses in History and/or Anthropology (6 semester hours).
 3. Other Electives (31 semester hours).

V. Crop Protection Specialty

- A. **Agriscience** (51 semester hours).
 1. Crop Protection Foundation (18 semester hours): Ento 304, 374; PPat 301 and 405 or 412; Hort 481; PPhy 310.
 2. Agriscience Foundation (10 semester hours): Ag 299, 497; Hort 262; Soil 304.
 3. Crop Production (6-7 semester hours) from the following courses: Hort 266, 351, 352, 354, 460.
 4. Agriculture Electives (16B17 semester hours).
- B. **General Education** (72 semester hours).
 1. Social Science/Humanities Foundation (12 semester hours): Acc 250/AgEc 221; Eng 100, 309; SpCo 151.
 2. Natural Science Foundation (33 semester hours): Biol 150, 153, 275, 281; Chem 124, 125; Math 205, 205L; Phys 106.
 3. Other Electives selected with advisor approval (27 semester hours).

VI. General Agriculture Specialty

- A. **Agriscience** (53 semester hours).
 1. Agriscience Foundation (25 semester hours):
 - a. Ag 299, 497; AgEc 330; AgEn 231; AnSc 141; Ento 304; Hort 262; PPat 301; Soil 304.
 2. 3 semester hours from the following courses: AnSc 342/351/353/354/355.
 3. 3B4 semester hours from the following courses: Hort 266/350/351/352/354/460.
 4. Elective Agriculture Courses (21B22 semester hours). At least 12 hours must be upper division courses.
- B. **General Education** (70 semester hours).
 1. Natural Science Foundation (24B25 semester hours): Biol 150, 153; Chem 124, 125; AgBu 110; Math 104 or above.
 2. Social Science/Humanities Foundation (21 semester hours): Acc 250/AgEc 221; Econ 201/AgEc 201; Eng 100; SpCo 151; Eng 309; electives.
 3. Other Electives may include Agriculture course (24B25 semester hours).

VII. Tropical Horticulture Specialty

- A. **Agriscience** (61-62 semester hours).
 1. Tropical Horticulture Foundation (9 semester hours): Hort 262, 264, 481.
 2. Horticulture Production (12-13 semester hours): Hort 263/266/350/351/352/354/403/460/Ag 394H.
 3. Agriscience Foundation (22 semester hours): Ag 299, 497; AgEn 231; AnSc 141/Aqua 262; Ento 304; PPat 301; PPhy 310; Soil 304.
 4. Elective Agriculture Courses (18-19 semester hours).
- B. **General Education** (61-62 semester hours).
 1. Natural Science Foundation (24B26 semester hours): Biol 150, 153; Chem 124, 125; CS 110/AgBu 110; Math 104 or above.
 2. Social Science/Humanities Foundation (15 semester hours): Acc 250/AgEc 221; Econ 201/AgEc 201; Eng 100; SpCo 151; Eng 309/SpCo 251.
 3. Other Electives may include Agriculture courses (22B23 semester hours).

TUITION AND FEES

(SUBJECT TO CHANGE)

Tuition and fees are charged according to the number of semester hours carried by the classified student; for the unclassified student, lower division tuition will be charged for courses numbered between 001 and 299 and upper division tuition will be charged for courses numbered 300 or higher. Auditors pay the same tuition as students enrolled for credit.

All tuition and fee charges at the University of Hawai'i campuses are subject to change in accordance with requirements of State law and/or action by the University of Hawai'i Board of Regents or Administration.

Tuition

	<i>1997-98</i>
Full-time lower-division students, per semester	
Resident	\$ 636.00
Nonresident	3,444.00
Part-time lower-division students, per credit hour	
Resident	\$ 53.00
Nonresident	287.00
Full-time upper-division students, per semester	
Resident	\$ 1,068.00
Nonresident	3,852.00
Part-time upper-division students, per credit hour	
Resident	\$ 89.00
Nonresident	321.00

Fees

Student Activity Fee—per semester:

Students will be assessed a student activity fee of \$1.00 per semester hour up to a maximum of \$10.00 per semester. This fee is completely refundable but only if the student withdraws from the University within the first two weeks of instruction.

Student Government Fee—per semester:

Students will be assessed a student government fee of \$1.00 per semester hour up to a maximum of \$10.00 per semester.

Publication Fee—per semester:

Students will be assessed a publications fee of \$5.00 per semester.

Other Registration Fees:

Nonresident Fee	\$25.00
Late Registration Fee	50.00
Change of Registration After the Initial Registration	5.00

Nonresident Application Fee:

Nonresident Admission Application Fee of \$25 for baccalaureate degree and education certificate applicants is not refundable and not transferable to another semester.

Special Fees and Charges:

Graduation Fee	\$15.00
Transcript of Record	3.00
Rush Transcript	10.00
Institutional Credit by Examination	15.00
Replacement of laboratory equipment	Cost of Item (items broken or lost)

Check tendered to the University or any department therein and returned for any cause: A fee of \$15.00 plus 10¢ per month interest shall be assessed for each returned check.

Payments

For registration to be official, all tuition and fees must be paid at time of registration.

Partial Advance Tuition Payment

All new, transfer, and returning classified students are required to make a partial advance tuition payment of \$60.00. Fellowship recipients are not exempt from this payment, if applicable. This partial advance tuition payment is applied at registration time toward tuition for that semester. The payment is nonrefundable and nontransferable if the student does not register. Continuing classified students are not required to make the partial advance tuition payment.

Tuition Refund Policy

- 100% for complete withdrawal made on or before the last day of regular registration.
- 80% if complete withdrawal or change in status or a change from one tuition rate to another tuition rate is made within the first two weeks of instruction.
- 40% if complete withdrawal or change in status or change from one tuition rate to another tuition rate is made within the third and fourth weeks of instruction.
- 0% if complete withdrawal or change in status or a change from one tuition rate to another tuition rate is made after the fourth week of instruction.

Note: As required by federal regulations, the refunds for financial aid recipients who are first time students withdrawing from the institution on or before the 60 percent point in time in the period of enrollment will be calculated on a prorata basis.

COLLEGE OF AGRICULTURE

FOR INFORMATION, PLEASE CALL:

Office of the Dean

(808) 974-7393

(808) 974-7674 FAX

e-mail: jfujii@hawaii.edu

Business Office 21

OR

UH Hilo Admissions Office

(808) 974-7414

(808) 974-7691 FAX

Office of Student Services

Purpose

The purpose of the College of Agriculture is to provide quality education to prepare individuals for careers in agriculture or further graduate study. The program blends comprehensive classroom instruction with practical, technology-based education through the use of the University of Hawai'i at Hilo Agricultural Farm Laboratory, and graduates skilled agriculturalists who can further develop and promote agriculture in the State of Hawai'i.

The College of Agriculture offers the Bachelor of Science degree (BS) in seven areas of specialization: Agribusiness, Agroecology and Environmental Quality, Animal Science, Aquaculture, Crop Protection, General Agriculture, and Tropical Horticulture. To provide a well-balanced education, a good portion of a typical curriculum consists of College of Arts and Sciences courses in addition to College of Agriculture courses. An agriculture building provides laboratories for courses in horticulture, plant tissue culture, animal science, entomology, plant pathology, plant physiology, soil science, agronomy, aquaculture, crop protection, and agribusiness. Students can also utilize the laboratories and campus greenhouses for special projects in directed reading and research courses.

A unique feature of the College of Agriculture is the University of Hawai'i at Hilo Agricultural Farm Laboratory. On 110 acres of land, students can experience practical learning in various enterprises such as: anthuriums, ornamental foliage, hydroponics, and floriculture plants, vegetables, beef, sheep, swine, goats, poultry, beekeeping, macadamia, bananas, guava, and aquaculture. Because direct application of newly gained knowledge is an integral part of the college's educational goals, many laboratories and courses are based on the farm. Hilo's location in the center of a large farming community also offers opportunities for field trips to many diversified agricultural and aquaculture enterprises.

Agribusiness: Students in the Agribusiness curriculum receive a strong background in agriculture and agribusiness, a combination that is in demand for today's agriculture. Graduates in Agribusiness can anticipate careers in an expanding and changing agriculture or in businesses serving agriculture. As more food is produced in increasingly varied forms there is a requirement for more processing, distribution, and other marketing functions and facilities. Entrepreneurs in agriculture require more advisory, informational and educational services. Thus, agribusiness and government agencies are hiring increasing numbers of young men and women who have both agricultural and agribusiness training.

Agroecology and Environmental Quality: The Agroecology and Environmental Quality curriculum is designed for students interested in sustaining agrarian and surrounding ecosystems through

more efficient management of land, biota, and water. As earth's population increases, demand will escalate for clean food and water. These activities, in combination with heightened energy requirements, will increase stress on our natural resources, such as soils, surface water, and ground water. Concurrent increased public concern about the long-term sustainability of our food production system will spur the development of more effective and safe cropping, livestock, fertilizer, pest control, and farm waste management practices. Low-input alternative farming methods that emphasize nutrient recycling and "environmentally friendly" production practices will be given special consideration. Students who complete their curriculum will be prepared to meet Challenges and can anticipate career opportunities in environmental regulatory agencies, conservation, farm service agencies, farm management, commercial laboratories, consulting, and graduate studies.

Animal Science: Animal Science students can choose either the Production or Pre-Veterinary Option. Students enrolled in either curriculum can receive a Bachelor of Science degree. Both options emphasize a practical curriculum made up of courses in agriculture, animal science, communications, and biological and physical sciences. Animal Science courses integrate genetics, health, housing, management, nutrition, physiology, reproduction, and livestock evaluation. To complement classroom instruction the College of Agriculture maintains cattle, goats, sheep, swine, and poultry on the UH Hilo Agriculture Farm Laboratory. The animals are used during lab periods to provide hands-on experience for students to help translate classroom instruction into real life situations.

Production Option: Students enrolled in this program are preparing for careers related to production, processing or marketing of livestock. Graduates often take positions as managers or herdsmen at farms, ranches and state experiment stations. Animal care positions also exist at equestrian centers, dude ranches, hotels, veterinary clinics and zoos. Graduates take positions with companies specializing in meat processing, livestock buying, semen collection and sales, feed and pre-mix manufacturing, and development of feed additives or veterinary pharmaceuticals. Other positions include representative of livestock and farm organizations, livestock buyer, salesman or technical representative for distributors of farm and ranch supplies, and technicians in diagnostic or feed analysis laboratories.

Pre-Veterinary Option: Students enrolled in this program are interested in pursuing post-graduate studies in Veterinary Medicine or Animal Science. The Pre-Veterinary Option meets the pre-professional course requirements for the Veterinary Medical programs at Colorado State University, Iowa State University, Oklahoma State University, University of Illinois and the WOI Regional Program. Furthermore, there are enough elective hours available in the Pre-Veterinary option to allow students to tailor their programs to meet the course requirements at other veterinary medical schools. The Pre-Veterinary curriculum also meets the pre-professional course requirements for many graduate Animal Science programs. Besides meeting these requirements, this program provides students with a strong background in communications, livestock production, and biological and physical sciences, so they will have the basic foundation for a successful career as a veterinarian or animal scientist. Career opportunities in Veterinary Medicine include private practice or positions in industry, with governmental agencies, at universities (extension, research, teaching) and at zoos. After completing post-graduate studies in Animal Science, persons can take positions as geneticists, meat scientists, nutritionists, researchers, teachers or extension specialists.

Aquaculture: The aquaculture program produces educated aquaculturists needed by the growing aquaculture industry in Hawai'i and throughout the world. Aquaculture graduates from UH Hilo can obtain employment immediately after graduation with private firms and various government agencies as aquaculture biologists/technicians. Also, because of the broad emphasis of the program on both biology and agriculture technology, they have many of the skills required to start their own aquaculture enterprises. If students desire a career in research or teaching, the aquaculture program is designed to enable the student to be qualified for admittance to graduate programs in aquaculture and fisheries.

The area in close proximity to the UH Hilo campus has unique potential for aquaculture education. The availability of warm freshwater from wells, warm seawater and cold seawater (from deep sea pipelines) allows the culture of most aquaculture species including trout, salmon, carp, shrimp, tropical fish, various seaweeds, and shellfish. A freshwater aquaculture facility at the UH Hilo Agricultural Farm Laboratory is used for both teaching and research.

Crop Protection: The Crop Protection student learns to manage a wide variety of plant problems which are detrimental to agricultural production. Since plant problems come from many sources, the Crop Protection curriculum draws its courses from the areas of Entomology, Plant Pathology, Weed Science, and Horticulture. In addition, the student is required to take "production" agriculture courses as well as biology courses, making the Crop Protection curriculum truly interdisciplinary in scope. The B.S. degree in Agriculture with emphasis in Crop Protection prepares the student for jobs with private enterprise or government agencies concerned with plant pest control, crop production, or environmental protection. In addition, the Crop Protection curriculum has enough flexibility to allow the student to meet the requirements of most graduate schools and thus further his or her education by pursuing a graduate degree.

General Agriculture: The General Agriculture specialization is designed to provide an opportunity for students and anyone interested in agriculture or an agriculture related field to have access to selected courses or topics in their area of interest. The curriculum is structured to offer a well-rounded undergraduate education in the basic and applied sciences of agriculture and related fields through quality "hands-on" training. Students graduating with a B.S. in Agriculture specializing in General Agriculture have opportunities to pursue careers in various areas of agriculture and agribusiness or work toward advanced degrees in agriculture.

Tropical Horticulture: The Tropical Horticulture curriculum is designed to provide students a well rounded background in horticultural science with special emphasis on the production of tropical and subtropical crops. The program offers a wide selection of courses, each providing the student with both the theoretical and the hands-on approach to learning the subject matter. The program also offers the student elective courses which utilize state-of-the-art technology in areas such as aseptic micro-propagation (plant tissue culture) and hydroponics. In addition to these specialized courses, the Tropical Horticulture curriculum is based on a solid core of traditional horticultural courses where students learn basic horticultural techniques such as grafting, pruning, pest management, and cultivating crops that are of economic interest in the tropics. Graduates from this program are highly skilled in managing, producing and marketing of horticultural crops.

Agriculture Minor

The valuable learning experiences gained through agriculture studies are not limited to Agriculture majors. Non-agriculture majors at UH Hilo can obtain a minor in Agriculture by completing a minimum of 15 hours of coursework (GPA 2.5 or better) in the College of Agriculture:

1. Three of the following (9 hours): Hort 262, AnSc 141, Aqua 262, AgEn 231, Soil 304.
2. One of the following (3 hours): AnSc 342/351/353/354/355, Hort 266/350/351/352/354/460, Agro 310, Aqua 350/351, AgBu 320.
3. Agriculture elective (3 hours), one of the following: any 200, 300, or 400 level courses.

Special Programs

In addition to its academic core of course offerings, the College of Agriculture has a number of special programs which offer special opportunities to students.

Student-Managed Farm Enterprise Projects: A unique feature of the college is the student-managed farm enterprise project program. Students select, plan and complete a management/production project under faculty supervision. If the student's project is successful, some income can be gained along with the valuable first-hand experience in production and agribusiness.

Agriculture Development Program: The College's Agriculture Development Program allows individuals who have the desire to attain a bachelor of science in agriculture the opportunity to do so even though they lack the proper preparation for standard admission. These students are given the opportunity to take advantage of a comprehensive set of support courses, tutorial assistance, and counseling in order to enhance their success in attaining the bachelor's degree.

A student accepted into the Agriculture Development Program is given a comprehensive set of examinations to assess his/her level of college preparation. The courses the student is then advised to take are designed to reflect the student's strengths as well as to develop basic skills.

Information on how to apply to this program is available from the offices of the Dean of the College of Agriculture (808) 974-7393 or the Admissions Office (Student Services 101; (808) 974-7414.

COLLEGE OF AGRICULTURE COURSES

Office: B0-21, (808) 974-7393

Professors:

Lorna H. Arita-Tsutsumi, Ph.D.
 Jack K. Fujii, Ph.D.
 Sheldon C. Furutani, Ph.D.
 William S. Sakai, Ph.D.
 Sabry A. Shehata, Ph.D.
 Michael J. Tanabe, Ph.D.
 Marcel Tsang, Ph.D.

Associate Professors:

Erik R. Cleveland, Ph.D.
 Kevin D. Hopkins, Ph.D.

Assistant Professors:

Bruce W. Mathews, Ph.D.
 Michael H. Shintaku, Ph.D.

Note: Shoes are required in all farm and field laboratory classes.

Course listing codes: (S) = every semester
 (Y) = yearly
 (AY) = alternate years
 (IO) = infrequently offered

AGRICULTURE (Ag)

100 Agriculture Orientation (3) (Y)

Introduction to commercial agriculture in Hawai'i. Field trips to visit farms; guest speakers to discuss agriculture extension, research, teaching, and farm loan programs that support commercial agriculture.

194 Focus on Agriculture (1) (S)

Topics related to diversified agriculture in Hawai'i chosen by the instructor. Course content will vary. May be repeated. Course is televised live, statewide, via the Interactive Television System and local cable community service channel.

195 Special Topics in Agriculture (1B4) (S)

Lower division topics chosen by instructor. Course content will vary. May be repeated, provided that a different topic is studied.

199 Directed Reading (1-3) (S)

Permission of instructor and statement of planned reading required.

230 Sustainable Agriculture (2 lec., 1 lab) (3) (Y)

Evaluation of conventional and alternative farming methods from a long-term perspective, analysis of the effects of those practices on environmental quality. Consideration of conflicting values and resolution.

290 Student-Managed Farm Enterprise Project (1-3) (IO)

Selection, planning, and completion of a production/management/marketing project under faculty supervision. Project participation is voluntary and subject to approval. Students must maintain complete production and financial records. (Repeatable)

299 Directed Work Experience Program (3) (S)

Agricultural practice in individual and team projects on independent farms or agricultural employment under supervision and direction during summer vacation or on a part-time basis during regular school period. Permission of instructor required. Only for College of Agriculture students and offered only on a CR/NC basis. Credits earned not included in maximum allowed.

304 Applied Microbiology (2 lec., 1 lab) (3) (S)

An overview of the production aspects of microbiology, including fermentation biology, mushroom cultivation, and modern biotechnology.

312 Agricultural Geography and World Food Problems (3) (IO)

Different types of agriculture, their location, and the cultural and environmental constraints operating to produce the resultant patterns. World food and hunger. Pre: Geog 101 or 103, or consent of instructor. (Equivalent to Geog 312)

395 Special Topics in Agriculture (1-4) (S)

Advanced topics chosen by instructor. Course content will vary. May be repeated, provided that a different topic is studied. Pre: junior standing or consent of instructor.

399 Directed Research (1-3) (S)

Permission of instructor and statement of planned research required.

497 Senior Seminar (1) (Y)

Guided research into current problems. Topics may vary according to interest of students and instructor. CR/NC only.

AGRIBUSINESS (AgBu)

110 Introduction to Microcomputing for Agriculture (2 lec., 1 lab) (3) (S)

Acquaints students with the microcomputer in agricultural applications by learning to use and adapt commercial software, to understand the operation of the microprocessor and its peripherals, and to provide hands-on experience in utilizing some of the most common word processing, spreadsheet, and database software and on using the Internet.

120 Agricultural Business Field Study (1-3) (IO)

Agribusiness and agrieconomic functions performed by specialized agricultural agencies with emphasis on physical operating patterns; field trips to production, marketing and finance firms; workshops with agribusiness managers.

299 Agribusiness Internship/Work Experience (3) (S)

Internship with agribusiness firms in the areas of management, sales, food distribution. Work experience may be used with advisor's approval.

320 Agribusiness Management (3 lec.) (3) (Y)

Organization forms and management functions of agribusiness firms, management science principles, inventory control, operation research techniques, decision model, and human resources development as they are related to agribusiness firms.

321 Agricultural Cooperatives Management (3 lec.) (3) (IO)

The nature and place of agricultural cooperatives in the nation with special emphasis on Hawai'i.

340 Agribusiness Research Communication (3 lec.) (3) (IO)

Primary research methods applied to agribusiness including problem definition, hypothesis formulation, research design, data collection, and results analysis measuring central tendency and variability. Mechanics of writing research proposals and technical report and oral presentations. Pre: Econ 201 or AgEc 201 and junior standing.

AGRICULTURAL ECONOMICS (AgEc)**201 Agricultural Economics (3 lec.) (3) (S)**

Economic principles of the firm (micro-economics) how prices are determined, efficient consumer-producer decision-making with application to agriculture. (Same as Econ 201)

221 Agricultural Accounting and Records Analysis (2 lec., 1 lab) (3) (Y)

Introduces accounting theory and methods used to record and report financial information for both the business and farm firm. Other topics include business organization, inventories, receivables and payables, depreciation, and computer applications.

322 Marketing Agricultural Products (3 lec.) (3) (Y)

Acquaints the student with the economic organization and operation of the food and fiber sector of the U.S. and Hawaiian economy. In two general parts, one provides a treatment of agricultural price analysis; the second examines the marketing system for agricultural inputs, farm products, and processing and distribution activities with emphasis on cooperative marketing. Field trips to cooperative and other marketing firms. Future trading. Pre: introductory course in economics or agricultural economics.

330 Farm Management (2 lec., 1 lab) (3) (Y)

Acquaints the student with both theoretical and applied aspects of farm management. Topics include farm planning, managerial control, and acquiring and managing resources. Emphasis on mainland but applied emphasis on Hawaiian farming systems. Stress on cost of production and cash flow budgets, capital investment, and linear programming. Computer applications. Pre: introductory course in economics or agricultural economics, Acc 250.

430 Agricultural Finance (3 lec.) (3) (IO)

Applies principles and tools of finance to managerial problems in agriculture. The focus is on evaluating and controlling profitability, risks, and liquidity in agricultural firms. Concepts include analysis of financial statements, leverage, credit, capital budgeting, and cost of capital, balanced with practical aspects of how and from whom farmers obtain loans in agriculture in Hawai'i. Pre: introductory course in economics or agricultural economics, Acc 250.

AGRICULTURAL ENGINEERING (AgEn)

The courses and associated laboratories in Agricultural Engineering are designed to provide students with basic mechanical skills and engineering principles required to be successful in modern agricultural enterprises. Both the theoretical and applications aspects of engineering in agriculture are discussed. Laboratory sessions provide students with hands-on work in design and installation. Successful completion of agricultural engineering courses will give graduates an edge in the job market or in their own enterprise.

Note: Suitable eye protection and shoes are required in all AgEn laboratory classes.

231 Introduction to Agricultural Mechanization (2 lec., 1 lab) (3) (S)

Identification, proper use and maintenance of basic tools used in the shop and farm; plan reading; identification, selection and estimation of material for agricultural projects using wood and metal; principles of arc and oxyacetylene welding; basic layout and leveling procedures; principles of concrete work; pipe fitting and simple electrical wiring.

232 Farm Tractor Operation (1 lab) (1) (IO)

Operation of agricultural tractors and allied machinery on the University Farm. Safety, maintenance, and field adjustments of tractors and implements. Limited enrollment. A valid drivers license.

301 Farm Power (2 lec., 1 lab) (3) (AY)

Management and maintenance of power units used in agriculture. Principles of internal combustion engines. Shop and field practice in adjusting and operating internal combustion engines and associated field equipment. Pre: Math 103. A valid driver's license is highly desirable.

302 Farm Structures and Utilities (2 lec., 1 lab) (3) (AY)

Farmstead planning, materials, design, construction and maintenance, farm utilities, water-sewage systems and labor-saving conveniences. Pre: Math 103 and AgEn 231.

305 Agriculture Mechanics Skills (1 lab) (1) (IO)

Design, construction, and evaluation of an agricultural project to be constructed in laboratory under faculty supervision. Pre: AgEn 231 or consent of instructor.

400 Aquaculture Engineering (3 lec., 1 lab) (4) (AY)

Principles of site selection, design and construction of aquaculture systems. Pre: Aqua 262 and Math 103 or equivalent. (Same as Mare 400)

435 Irrigation Principles and Practices (2 lec., 1 lab) (3) (Y)

Comprehensive study of basic irrigation principles and practices. Basic hydraulics, water supply, conveyance, and measurement. Plant-soil-water relationship, evapotranspiration, and scheduling. Planning and design of irrigation systems. Pumps. Pre: Math 103 or consent of instructor.

AGRONOMY (Agro)

Agronomy is the specialization of agriculture concerned with the theory and practice of field-crop (food, fiber, and feed) production and soil management. The principles learned in these courses are especially applicable to farm managers, seed, feed, and agrichemical dealers/private business, government extension agents, research technicians, and graduate school.

310 Agronomic Crop Production in the Tropics (2 lec., 1 lab) (3) (IO)

Current agricultural practices in production of food, feed, and fiber crops in the tropics. Pre: Hort 262 or consent of instructor.

410 Soil-Plant-Herbivore Interrelations (2 lec., 1 lab) (3) (Y)

The principles of plant competition and succession during the establishment and maintenance of herbaceous species and communities are related to soil, biotic, and microclimate factors and their interactions. Ecological and nutritional principles embodying plant and animal factors in the utilization of herbaceous plants by livestock are established. Research methodology in grassland systems also is presented. Pre: AnSc 141, Biol 153 or Hort 262, or consent of instructor.

ANIMAL SCIENCE (AnSc)

Animal Science students can choose either the Pre-Veterinary or Production Option. Students enrolled in either curriculum can receive a Bachelor of Science degree.

The Pre-Veterinary Option is designed for students interested in pursuing post-graduate studies. This option meets the pre-professional course requirements of major Veterinary Medical and Graduate Animal Science Programs. Career opportunities in Veterinary Medicine include private practice or positions in industry, with governmental agencies, at universities (extension, research, teaching) and at zoos. After completing post-graduate studies in Animal Science, persons can take positions as geneticists, meat scientists, nutritionists, researchers, teachers or extension specialists.

Students enrolled in the Production Option are preparing for careers related to production, processing or marketing of livestock. Graduates often take management or technical positions at farms, ranches, equestrian centers, veterinary clinics, quarantine stations, and state experiment stations. Positions also exist with companies specializing in meat processing, semen collection, feed manufacturing, and veterinary pharmaceuticals. Other positions include representatives and technicians with livestock organizations, companies, and laboratories.

141 Introduction to Animal Science (2 lec., 1 lab) (3) (S)

Introduction to livestock, breeds, breeding, handling, health, industry, market classes, nutrition, reproduction, products, and terms.

244 Fundamentals of Animal Nutrition (2 lec., 1 lab) (3) (Y)

Comparative animal digestive systems and metabolism. Essential nutrients, their functions, mechanisms of action and interrelationships. Pre: AnSc 141, Chem 124 and 125, or consent of instructor. (Equivalent to Biol 254)

321 Feeds and Feeding (2 lec., 1 lab) (3) (Y)

Identification of common feedstuffs and their feeding value for animal production. Important concepts on feed processing, nutrient availability, diet formulation, and feeding management. The economics of feeding and purchasing feeds based on nutrient value. Pre: AnSc 141 and AnSc 244.

342 Beef Cattle Production (2 lec., 1 lab) (3) (Y)

Principles of efficient beef production including comparative breed evaluation, performance testing and selection, breeding, feeding management, health care, and marketing. Pre: AnSc 141 or consent of instructor.

350 Anatomy and Physiology of Farm Animals (2 lec., 1 lab) (3) (IO)

Structure and function of the animal body, including those of the horse, cow, sheep, pig, and comparisons with the human body. A general study of anatomy, but emphasis placed on understanding the physiology of animal systems. Pre: AnSc 141, Chem 124 or consent of instructor. (Equivalent to Biol 323)

351 Swine Production (2 lec., 1 lab) (3) (Y)

Principles of efficient pork production including: breeds, crossbreeding, feeding, herd health, housing, management, selection and waste management. Pre: AnSc 141 or consent of instructor.

353 Horse Production (2 lec., 1 lab) (3) (IO)

Origin of species, breeds, feeding, care and management of light horses. Limited enrollment. Pre: AnSc 141 or consent of instructor.

354 Poultry Production (2 lec., 1 lab) (3) (IO)

Principles of efficient poultry production including breeding, feeding, housing, and management of different types of poultry. Problems and practices associated with tropical environment emphasized. Pre: AnSc 141 or consent of instructor.

355 Goat and Sheep Production (2 lec., 1 lab) (3) (Y)

Principles of efficient goat and sheep production, including: breeds, evaluation, crossbreeding, feeding, herd health, management, reproduction and selection. Pre: AnSc 141 or consent of instructor.

445 Animal Breeding and Genetics (2 lec., 1 lab) (3) (Y)

Principles of Mendelian, population and quantitative genetics. Applications to improvement of livestock through selection methods and mating systems. Pre: AnSc 141. Biol 180 or Math 121 is recommended.

450 Reproduction of Farm Animals (2 lec., 1 lab) (3) (Y)

Livestock reproductive anatomy and physiology. Pre: AnSc 141. AnSc 350 or Biol 323 are recommended. (Equivalent to Biol 450)

453 Animal Diseases and Parasites (2 lec., 1 lab) (3) (IO)

Prevention, control and treatment of diseases and parasites in livestock. Pre: AnSc 141 or consent of instructor.

AQUACULTURE (Aqua)

The Aquaculture program in the College of Agriculture is designed to provide students with a broad understanding of the scientific bases, design and management of aquaculture systems. The program provides hands-on training in a wide-range of aquaculture activities and stresses the international nature of aquaculture. Approximately 40% of the required courses are in aquaculture and agriculture with the other 60% in natural sciences and humanities.

262 Introduction to Aquaculture (2 lec., 1 lab) (3) (Y)

Discussion of the biological, physiochemical and economic aspects of aquaculture, including a survey of the culture techniques of cultured species of finfish, shellfish, lower invertebrates and algae. Pre: Biol 150 or 153. (Equivalent to Mare 262).

350 Culture of Finfish (2 lec., 1 lab) (3) (AY)

Principles and practices used for the culture of finfish. Pre: Aqua 262, Math 103 or equivalent, or consent of instructor. (Equivalent to Mare 262).

351 Culture of Aquatic Plants and Invertebrates (2 lec., 1 lab) (3) (AY)

Principles and practices used for the culture of aquatic plants and invertebrates. Pre: Aqua 262, Math 103 or equivalent, or consent of instructor. (Equivalent to Mare 262).

425 Water Quality and Aquatic Productivity (2 lec., 1 lab) (3) (Y)

Study of water quality and aquatic productivity as it relates to aquaculture and fisheries. Pre: Aqua 262 or Biol 281 or Mare 382; Chem 125. (Same as Biol 425)

475 Fish Population Dynamics (2 lec., 1 lab) (3) (AY)

Study of growth, mortality, recruitment and yields in fish populations with emphasis on the similarities between natural and culture systems. Pre: Math 121 or Mare 250 and familiarity in spreadsheet usage. Biol 281 or Mare 382 recommended. (Same as Biol 475 and Mare 475)

ENTOMOLOGY (Ento)

There are a wide range of Entomology courses offered at the College of Agriculture. There are courses which provide students with basic knowledge on insects and their habitats, as well as specialized ones on control of insect pests. One area of special interest in Entomology is beekeeping which allows students to manage honeybee colonies, extract honey and other products from the hive, and build beekeeping equipment. All Entomology courses provide students with hands-on experience working with insects.

262 Introductory Beekeeping (2 lec., 1 lab) (3) (Y)

Biology, behavior, and management of honeybees for honey production. Limited enrollment.

304 General Entomology (2 lec., 1 lab) (3) (S)

Structure, classification and identification of insects. Pre: Biol 150 or 153 or consent of instructor. (Equivalent to Biol 205)

350 Advanced Beekeeping (2 lec., 1 lab) (3) (Y)

Advanced beekeeping practices designed to improve hive quality such as queen rearing, artificial insemination, and requeening as well as the utilization of products from the hive. Pre: Ento 262 or consent of instructor.

361 Insect Morphology (2 lec., 1 lab) (3) (IO)

Comparative and gross morphology; homologies of structure; anatomy; development in representative groups. Pre: Ento 304 or consent of instructor.

362 Systematic Entomology (2 lec., 1 lab) (3) (IO)

Classification of insects; orders and families; use of taxonomic tools. Pre: Ento 361 or consent of instructor.

374 Insect Pest Control (2 lec., 1 lab) (3) (Y)

Destructive and beneficial insects; principles of cultural, mechanical, legislative, biological, and chemical control. Pre: Ento 304 or consent of instructor.

FOOD SCIENCE (FdSc)

Food Science is the multidisciplinary study of foods involving various aspects of microbiology, nutrition, chemistry, and physics. Food Science contributions include improving the quality, safety, convenience and nutritional status of food. Specialties in the field of Food Science include biotechnology and processing techniques, food engineering, sensory evaluation, food packaging, food safety, nutrition, product development, quality assurance, and food regulations. Graduates are employed by government, industry, and academia.

201 Man's Food (2 lec., 1 lab) (3) (IO)

History and current food supply; man's role in production, preservation, processing, and consumption of food. Pre: one semester general chemistry or consent of instructor.

FORESTRY (For)

202 Forestry and Natural Resources (2 lec., 1 lab) (3) (Y)

Development of forestry and agroforestry, forest biology, soils, ecology, conservation, management, and products. Field trips to various forestry operations. Pre: placement test equivalents.

203 Tropical Forest Dendrology (2 lec., 1 lab) (3) (IO)

Description, identification, and location of forest tree and shrub species in Hawai'i. Both native and non-native species will be learned. Emphasis will be on species that have commercial value or potential, but some weedy species will be included. Field trips to various parts of the island.

HORTICULTURE (Hort)

The horticulture program at the College of Agriculture is designed to provide the student with the necessary skills and knowledge required for employment and postgraduate education. Hands-on participation is an integral part of each course and strengthens the students' ability to apply theory. Required and elective horticulture course requirements cover a wide range of topics such as nursery operation, tropical landscaping, vegetable crop production, tropical fruit production, and many more. Courses such as plant tissue culture, structure of tropical plants, weed science, and others will generally be accepted as graduate level courses. Additionally, students will broaden their experience through required and elective courses from other agriculture areas of specializations. Graduates from this program typically find employment as entrepreneurs, research associates, teachers, extension agents, grounds superintendents, agriculture products sales persons, plant quarantine inspectors, and agriculture technicians.

262 Principles of Horticulture (2 lec., 1 lab) (3) (S)

Introduction to the various divisions of horticulture and the relationship of plants to environment. Plant structure and function. Opportunity for observation and practice of various horticultural technologies. Students are required to participate in a garden project.

263 Hydroponics (2 lec., 1 lab) (3) (Y)

Introduction to circulating and non-circulating hydroponic methods. Students are required to participate in the construction and maintenance of a hydroponic system. Pre: Hort 262.

264 Plant Propagation (2 lec., 1 lab) (3) (Y)

Seminal propagation; vegetative propagation by cuttings, grafting, budding, layering, division and separation. Propagating systems and plant tissue culture. Pre: Eng 100.

266 Nursery Operation (2 lec., 1 lab) (3) (Y)

Introduction to plants, cultural practices, and operation of wholesale nurseries in Hawai'i. Environmental factors, materials and structures, principles of management, production, and marketing. Excursions to various nurseries. Pre: Hort 262 or consent of instructor.

350 Tropical Landscape Horticulture (2 lec., 1 lab) (3) (Y)

Identification of landscape plants; design, construction, installation, care and maintenance of landscapes. Limited enrollment. Pre: Hort 262 or Biol 153.

351 Vegetable Crop Production (2 lec., 1 lab) (3) (Y)

Vegetable technology and physiology, cultural methods, breeding and marketing. Field trips to vegetable-producing areas. Pre: Hort 262 or consent of instructor.

352 Tropical Fruit Production (2 lec., 1 lab) (3) (Y)

History, botanical relationships, climatic relationships, culture, management, and marketing. Excursions to various fruit orchards. Pre: Hort 262 or consent of instructor.

354 Floriculture and Ornamental Production (3 lec., 1 lab) (4) (Y)

Cultural and management practices in production of cut flowers and flowering pot plants. Major Hawaiian and mainland flower crops are considered. Visits to anthurium and other enterprises. Pre: Hort 262 or consent of instructor.

360 Orchidology (2 lec., 1 lab) (3) (Y)

Historical, biological, and horticultural aspects of orchids. Labs and field trips will introduce students to the practical aspects of orchid production.

403 Plant Tissue Culture (2 lec., 1 lab) (3) (S)

The science and art of propagating plants by in vitro culture. Concepts in laboratory design, business considerations, disinfection, media preparation, and culture techniques. Emphasis on practical application in the laboratory. Limited enrollment. Pre: Hort 262 and Chem 124; recommended: Hort 264.

437 Structure of Tropical Plants (3 lec., 1 lab) (4) (AY)

Plant structure in relation to cultural practices, functions, genetic factors and development. Pre: Biol 153. (Same as Biol 417)

450 Advanced Plant Tissue Culture (1 lec., 1 lab, 1 disc) (3) (S)

Provides the student with hands-on experience in plant tissue culture techniques. Evaluative and diagnostic skills will be emphasized. Students will design and test techniques most appropriate for tissue culturing plant(s) of interest. Limited enrollment. Pre: Hort 403.

451 Plant Improvement (2 lec., 1 lab) (3) (IO)

Application of plant breeding techniques and methods of improving crops with special emphasis on Hawaiian plants.

460 Turfgrass Management (2 lec., 1 lab) (3) (IO)

The selection, propagation, establishment and maintenance of turfgrasses with special emphasis on warm season turfgrasses. Limited enrollment. Pre: Hort 262.

471 Post Harvest Handling (2 lec., 1 lab) (3) (IO)

Methods of handling, storing, and shipping of fresh horticultural commodities with emphasis on Hawaiian fruits, vegetables, and ornamental plants. Pre: Hort 262 and Chem 124.

481 Weed Science (2 lec., 1 lab) (3) (Y)

Classification, identification, and adaptation of weeds. Principles of weed control, including properties, use, and action of herbicides. Pre: Hort 262 or Biol 153 and one year of chemistry.

PLANT PATHOLOGY (PPat)

The College of Agriculture offers one general and two advanced courses in plant pathology. The general course, Tropical Plant Pathology, covers a broad range of subjects at the introductory level. These include study of the living entities that cause plant disease, the mechanisms by which they produce disease, the interactions between pathogens and host, and the methods of managing plant diseases.

The advanced course, Plant Disease Diagnosis, trains the student to recognize the symptoms of many plant diseases and to apply appropriate diagnostic techniques. Plant Disease Control offers in-depth coverage of epidemiology and the rational selection of appropriate control measures.

Plant pathologists use the basic knowledge and techniques of botany, mycology, bacteriology, virology, nematology, plant anatomy, plant physiology, biochemistry, horticulture, tissue culture, soil science, chemistry, physics, and more. It is essential that students wishing to pursue careers in plant pathology receive broad training in many sciences.

301 Tropical Plant Pathology (2 lec., 1 lab) (3) (S)

Principles of plant pathology, major diseases in the tropics caused by fungi, bacteria, nematodes, and viruses; their nature, diagnosis and control. Pre: Bio 153 or consent of instructor.

405 Plant Disease Diagnosis (2 lec., 1 lab) (3) (Y)

Practical skills in field and laboratory to determine the cause of a plant disease. Recognition of characteristic symptoms of diseased plants and signs of pathogens; use of confirming tests. Pre: PPat 301.

412 Plant Disease Control (2 lec., 1 lab) (3) (Y)

Methods and principles of plant disease control, including chemical and nonchemical means, based on epidemiology and the disease cycle. Formulation and application of control recommendations. Pre: PPat 301.

PLANT PHYSIOLOGY (PPhy)**310 Plant Growth and Development (2 lec., 1 lab) (3) (Y)**

The chemistry and physiology of growth regulators and their involvement in plant growth and development. Experiments and demonstrations illustrating both basic and applied aspects of chemical growth regulation. Pre: Hort 262 or Biol 153 and one year of college chemistry.

415 Plant Nutrition (2 lec., 1 lab) (3) (IO)

Mineral nutrition of plants, symptoms of mineral deficiency, corrective measures, water relations and nitrogen cycle. Special attention will be given to the role of nutrients in essential physiological and behavioral process. Pre: Hort 262 or Biol 153 and one year of college chemistry.

SOIL SCIENCE (Soil)

Soil Science coursework provides students with an excellent background in the properties of soil and soil management. Emphasis is placed on the role soils play in environmental studies as well as agriculture. Soil Science courses help prepare students for a wide range of employment, including environmental consulting firms, soil and plant tissue testing labs, fertilizer and pesticide dealer/applications businesses, government and private research labs, farm management, private business, and graduate school.

304 Tropical Soils (2 lec., 1 lab) (3) (S)

Origin, development, properties, use and management of tropical soils; classification of Hawaiian soils. Pre: Chem 124 and 125 or consent of instructor.

350 Soil Fertility (2 lec., 1 lab) (3) (IO)

Nutrient availability in relation to chemical and physical properties of soil; fertility evaluation by plant response and soil tests. Pre: Soil 304.

401 Soil Survey & Classification (1 lec., 2 labs) (3) (IO)

Morphogenesis and physicochemical characterization of soils; land capability classification; soil mapping; and preparation of soil survey reports. Limited enrollment. Pre: Soil 304 or consent of instructor.

461 Soil Conservation and Environmental Quality (2 lec., 1 lab) (3) (Y)

Analysis of the effect of agriculture on water pollution and soil erosion; pollutant transport; vegetational and mechanical controls; treatment and utilization of farm wastes; conservation farming. Limited enrollment. Pre: Soil 304.

COLLEGE OF ARTS AND SCIENCES

FOR INFORMATION, PLEASE CALL:

Office of the Dean

(808) 974-7300
 (808) 974-7690 FAX
 e-mail: phillipt@hawaii.edu
 College Hall 1A

OR

UH Hilo Admissions Office

(808) 974-7414
 (808) 974-7691 FAX
 Office of Student Services

Purpose

The purpose of the College of Arts and Sciences is to provide quality education in the liberal arts and sciences, as well as a select group of high quality professional and pre-professional programs. Therefore, the academic emphasis in the College of Arts and Sciences is on the traditional arts and sciences subjects, particularly those with special relevance to Hawai'i.

Educational Philosophy

The College of Arts and Sciences offers students a diversified and quality liberal arts curriculum which combines a traditional nature with the flexibility to meet the needs of every student.

The purpose of this traditional, yet flexible, liberal arts curriculum is to provide students with an opportunity to achieve a common basis for intellectual discourse so that they will be prepared to meet the demands of both profession and citizenship. Accordingly, students in the College receive an education which enables them to:

1. Communicate in both the written and spoken media with precision and cogency;
2. Think critically and engage in reasoned discussions about complex issues;
3. Understand major historic and philosophical concepts, and scholarly, literary and artistic accomplishments of the past and present;
4. Comprehend the physical universe, our own and other societies, the mathematical and experimental methods of the natural sciences, and the qualitative and quantitative methods of the social sciences; and
5. Achieve a depth of understanding and competence in a specific field of knowledge.

Instructional Methods

The College employs a wide variety of instructional methods in order to implement the educational philosophy stated above. Experimentation with new pedagogical techniques that show promise of being effective is encouraged. At the College students will encounter instruction in such forms as:

Lectures in both lower and upper division courses. Every effort is made to limit the size of classes to allow for student-teacher discourse and to minimize student anonymity in the classroom. Where appropriate, lecture classes are complemented by audio-visual techniques that enrich and enhance the learning process.

Laboratory courses which provide educational experience in the design, conduct, and analysis of research in real and simulated settings. These courses, which are usually adjuncts to lecture classes, also offer opportunities for the student to develop skills in observations, data collection, problem-solving, interpretation, and working effectively in small teams.

Seminars, which are an important part of the instructional process because they provide an opportunity for students to study in their major fields of interest at an advanced level and in small groups. Seminars are used primarily in upper division courses, but where appropriate, this format is also used in the lower division.

Independent study and the senior thesis. These provide an opportunity for students to pursue knowledge in an area of particular interest under the supervision of an instructor. Such study is of a specialized nature, and, thus, it is limited to those students who have sufficient background in the field to benefit from independent inquiry.

Field trips, which introduce students to real situations outside of the classroom. These trips are particularly valuable in those areas of study that relate to the physical and cultural environment and the major research facilities on the island.

Internships and practica, whose importance to the instructional process comes from the bridge they form between the classroom and the outside world. These methods provide students with opportunities to apply the knowledge and techniques acquired in the classroom. By placing students in the community, they also serve as a means of strengthening the relationship between the College and the community.

Evaluation of Students

The College of Arts and Sciences does not establish specific methods by which each instructor evaluates students, nor does the College require each instructor to meet identical criteria for such evaluation. The testing methods and standards for each course are determined by the instructor and are presented to the student in the syllabus for the course, which is provided to each class during the first days of each semester. Thus, methods and standards may vary from course to course and instructor to instructor. In the same spirit, the instructor is free to select the material and teach the course in such manner as he or she feels appropriate.

This philosophy, which is based on the principle of academic freedom, provides the student with a great variety of approaches from which to choose and exposes the student to an equally wide variety of teaching methods. However, common to these methods will be basic standards of essential fairness and impartiality of the evaluation process. Students are provided with recourse if they feel that these standards have not been met. The College of Arts and Sciences is dedicated to providing the student with the best educational experience available, a dedication to which its many successful graduates can attest.

Curricula

At the College of Arts and Sciences the baccalaureate degree is offered in the following academic majors:

	BA	BBA	BS	Minor
Anthropology	*			*
Art	*			*
Biology	*		*	*
Business Administration		*		*
Chemistry	*			*
Computer Science			*	*
Earth and Space Science				*
Economics	*			*
English	*			*
Geography	*			*
Geology			*	*
Hawaiian Studies	*			*
History	*			*
Japanese Studies	*			*
Liberal Studies	*			*
Linguistics	*			*
Marine Science	*			*
Mathematics	*			*
Music	*			*
Natural Science	*			*
Nursing			*	
Philosophy	*			*
Physics	*			*
Political Science	*			*
Psychology	*			*
Sociology	*			*
Speech	*			*

In addition, the College of Arts and Sciences offers a teacher education program which has been approved for certain academic majors. Those students who satisfactorily complete a prescribed sequence of courses in education, along with an approved academic major, qualify for the Initial Basic Teaching Certificate issued by the Hawai'i State Department of Education. A professional certification program is also offered.

The Departments of Geology and Astronomy jointly offer a minor in Earth and Space Science.

Classes at the College of Arts and Sciences frequently conduct field studies at various sites on Hawai'i Island. Archaeology students participate in investigating ancient Hawaiian sites and artifacts. Geology, biology, and geography students explore the island's volcanoes, marine environment and varied ecosystems. Numerous social science courses make use of the wide ethnic heritages represented on the island of Hawai'i. In the teaching of numerous subjects, the College seeks to make use of Hawai'i Island and its multi-cultural heritage and physical setting as a miniature continent in the midst of a tropical ocean.

Although the University of Hawai'i at Hilo is isolated from the tensions of the metropolitan environment, the College is not isolated from the world. Many courses at Hilo have a strong international accent. Both the Eastern and Western traditions are studied in courses in philosophy, religion, and history. Languages taught at the college include French, Hawaiian, Japanese, and Spanish.

Students in the College of Arts and Sciences have considerable liberty to design, in cooperation with their professors, individualized courses of instruction. Through the "99" sequence of courses, students may undertake directed reading and research. Furthermore, the Liberal Studies Program allows students to design their own majors by combining subjects of study which are demonstrably pertinent to their personal, educational, developmental or career objectives.

Special Programs

In addition to its academic core of major subjects, the faculty of the College of Arts and Sciences has established a number of special programs which lend an attractive variety to the course of studies.

The Honors Program

The UH Hilo Honors Program is designed to motivate, challenge, and enrich qualified students. It is open to all UH Hilo students. The Program is described under Honors in the departmental course listings which follow.

Minority Biomedical Research Support Program (MBRS)

The National Institutes of Health continue to fund a major program in biomedical research at the College of Arts and Sciences. The program is intended to encourage students from minority groups which are under-represented in the biomedical sciences to pursue research careers in medicine and the health-related professions. Students in the program work with the faculty in anthropology, biology, psychology and other disciplines on research projects. Students who are selected for the program may earn up to a maximum of \$6,000 for full-time work during the summer and part-time work during the academic year. Through these projects, students gain training in scientific research and preparation for post-baccalaureate studies. For further information, contact the MBRS Program Director, Natural Sciences Division, College of Arts and Sciences; (808) 974-7601.

Hawai'i Student Science Training Program (Hawai'i-SSTP)

The College of Arts and Sciences conducts a Hawai'i Student Science Training Program in calculus-physics for high-ability high school students. The program was initiated and funded under the auspices of the National Science Foundation for three years beginning the summer of 1979. For the summer of 1982 through 1987 the program received funding support from the State DOE and private donations. Since the summer of 1988 it has become a University of Hawai'i at Hilo funded program. The program is designed for scientifically gifted and motivated high school juniors to provide them with learning opportunities beyond those normally available in the secondary school curricula. The seven-week resident program consists of seven integrated activities: lecture, laboratory, recitation-discussion, computer experiences, individual research participation, field trips, and social/leisure activities. For further information, contact Director of Hawai'i-SSTP, Department of Physics, College of Arts and Sciences; (808) 974-7319.

Marine Option Program (MOP)

The Marine Option Program is a certificate program for undergraduate students at the University of Hawai'i. The program is designed to combine academic requirements with practical hands-on experience in different areas of marine interest.

MOP is aimed at assisting undergraduate students in acquiring knowledge in a marine field of the student's choice. MOP also serves as the UH Hilo center for marine-related activities ranging from scientific research to marine recreation. UH Hilo MOP trains students in sailing and seamanship and operates the 27-foot sailing yacht, *Na Naupaka*, and a fleet of smaller Laser and Flying Junior sailboats. In addition to sailing, students may learn fishing, snorkeling, kayaking and other marine recreational skills through MOP. Each year MOP students are trained in wildlife management by tagging green sea turtles in an on-going sea turtle research program carried out in cooperation with the National Marine Fisheries Service.

MOP also sponsors seminars, films, field trips and short-courses on various marine-related subjects. UH Hilo MOP coordinates the annual UH system-wide SCUBA research techniques

course, QUEST (Quantitative Underwater Ecological Surveying Techniques), held in May at UH Hilo and on the Puako coral reef.

Each year MOP sponsors a Student Skill Project Symposium where selected students gain valuable experience by presenting the results of their projects. The site for the symposium rotates between UH campuses, being held on a different island each year.

All UH Hilo students are invited to take part in MOP-sponsored activities. MOP students may also choose to work toward a University of Hawai'i MOP Certificate by completing selected course work and a hands-on field project.

The goals of MOP are to:

- a. Provide an opportunity for undergraduate students in any discipline to acquire a marine orientation during his/ her residency at UH Hilo;
- b. Add focus and relevance to the academic marine courses by aiding the students in acquiring a practical "marine skill";
- c. Help each MOP student, through counseling, discover and implement his/her individual marine-oriented educational career goals;
- d. Provide special seminars and interdisciplinary courses designed to acquaint the undergraduate student with the many facets of marine affairs; and
- e. Continue to provide opportunities and guidance to students who wish to contribute their talents by working toward solutions for social and environmental ocean-related problems.

For further information, contact the MOP Coordinator, Kalakaua Marine Education Center, Natural Sciences Division, College of Arts and Science; (808) 974-7544, 974-7383.

Pre-Law Studies

The study of law is a postgraduate professional program usually requiring three years of full-time study beyond completion of the bachelor's degree. No specific pre-law program or major is required for admission to law school, however many pre-law students major in political science, economics, history, philosophy, English, or business administration. Whatever the major, students intending to apply to law school would benefit from courses emphasizing critical analysis, writing, and interpretation. A number of law schools also suggest a course in accounting as well.

Law schools place a great deal of emphasis in their admissions decisions on the Law School Admission Test (LSAT) as well as grade point average, so students considering law school should start preparing no later than their junior year for the LSAT. It is highly recommended that such students acquire The Official LSAT PrepTest published by the Law School Admission Council or similar publications that help prepare the student for the examination and see the pre-law advisor early in their academic career. The pre-law advisor can assist students in selecting appropriate courses and majors, in preparing for the LSAT, and in selecting law schools.

The UH Hilo pre-law advisor is Dr. A. Didrick Castberg, Professor of Political Science, located in PB12-10.

UH Hilo Space Grant College

The University of Hawai'i has been a NASA Space Grant College since 1990. The Hawai'i Space Grant College Program funds space science related activities on the Manoa and Hilo campuses of the University, with the Hilo campus in the flagship role for undergraduate programs in astronomy, space, and related fields. With its close proximity to the astronomical observatories on the Island of Hawai'i, and its commitment to quality undergraduate education in a liberal arts environment, UH Hilo provides excellent opportunities for college students, teachers, pre-college students and the general public in the areas of astronomy and space science. Current programs at UH Hilo supported by the Hawai'i Space Grant College Program include:

Space Grant Fellowship Program. A fellowship program is administered in support of undergraduate students interested in space-related programs of study. The fellowships are typically for a period of one year, and provide a stipend of \$1,000 per semester, a full tuition waiver, and travel and supplies funding. Space Grant Fellows undertake research programs in collaboration with faculty mentors, and participate in a twice-yearly colloquium with Fellows from other campuses of the University of Hawai'i. Research programs undertaken by Fellows in the last two years have been in the areas of astronomy, biology, mathematics, physics and geography. Several projects have resulted in scientific publications.

Astronomy for Gifted and Talented, Native Hawaiian Children. The parent University of Hawaii Space Grant College supports the Na Pua No'eau Center's two-week course on traditional and contemporary astronomy for ethnic Hawaiian gifted and talented children in grades 9-12. The course, held on campus, with its international telescope center atop Mauna Kea, relates the use of astronomy by Polynesian navigators to the interests of contemporary astronomers.

Undergraduate Astronomy Curriculum Development. The UH Hilo Space Grant College Program has funded development of new courses in astronomy, with the intent of establishing a baccalaureate astronomy program on campus. To date, courses in astrophysics and advanced observational astronomy have been developed and offered. Together, these two courses prepare advanced students for careers in astronomy. The Program has led to the funding of astronomy research instruments—including a stellar photometer and a CCD camera—which are used by students in research projects on some of the smaller telescopes atop Mauna Kea. Other programs being developed include a Summer Astronomy Research Institute for advanced undergraduate students from Hawai'i and throughout the U.S., and a Space Science Certificate Program which will enhance the existing role of astronomy and space sciences in the education of UH Hilo students.

Space Science Center. The UH Hilo Space Grant College supports a Space Science Center which serves as the focus for astronomy and related programs on campus. The Center includes a modern and extensive computing facility for use by Space Grant Fellows and other students and faculty, a research library with a substantial journal collection, and an Astronomy Instrumentation Laboratory for the development and testing of research instrumentation.

Certificate Programs

The College of Arts and Sciences offers certificate programs in Astronomy, Basic Hawaiian Culture, Environmental Policy and Political Economy, Hawaiian Language, Natural Science, Pacific Islands Studies, Performing Arts, Planning, Public Administration and Public Service, Systems Modeling, and Women's Studies. Information about the certificate programs may be obtained as follows: **Astronomy:** Chairperson, Astronomy, Natural Sciences Division, College of Arts and Sciences; (808) 974-7649; **Basic Hawaiian Culture:** Chairperson, Hawaiian Studies, Humanities Division, College of Arts and Sciences; (808) 974-7475; **Environmental Policy and Political Economy:** Chairperson, Political Science and Sociology Department, Social Sciences Division, College of Arts and Sciences; (808) 974-7460; **Environmental Studies:** Chairperson, Geography, Natural Sciences Division, College of Arts and Sciences; (808) 974-7383; **Hawaiian Language:** Chairperson, Hawaiian Studies, Humanities Division, College of Arts and Sciences; (808) 974-7475; **Natural Science Certificate:** Chairperson, Natural Sciences Division, College of Arts and Sciences; (808) 974-7383; **Pacific Islands Studies:** Chairperson, Anthropology Department, Social Services Humanities Division, College of Arts and Sciences; (808) 974-7460; **Performing Arts:** Chairperson, Performing Arts, Humanities Division, College of Arts and Sciences; (808) 974-7479. **Planning:** Chairperson, Geography, Social Sciences Division, College of Arts and Sciences; (808) 974-7460. **Public Administration and Public Service:** Chairperson, Political Science, Social Sciences Division, College of Arts and Sciences; (808) 974-7460. **Systems Modeling:** Chairperson, Mathematics, Natural Sciences Division, College of Arts and Sciences; (808) 974-7383. **Women's Studies:** Facilitator, Women's Studies, Social Sciences Division, College of Arts and Sciences; (808) 974-7460.

The Marine Option Program (MOP), as described in the preceding section, is a certificate program which awards the MOP certificate for successful completion of requirements.

College of Arts and Sciences courses and major programs are listed by academic discipline. Special notations used are:

- a. 101, 102 = a year's sequence in which 101 is not prerequisite for enrollment in 102.
- b. 101B102 = a year's sequence in which 101 is prerequisite for enrollment in 102.
- c. (3B3) Yr. = a year's sequence carrying 3 semester hours each semester.
- d. (Arr) = the number of semester hours is arranged by the instructor.

Certain number endings are reserved for particular types of courses. "94" courses are Special Topics Courses, "95" courses are seminars, "96" courses are internship courses, "97" and "98" courses are experimental courses offered only for one year on that basis ("97" is usually offered in the Fall and "98" in the Spring), and "99" courses are research and directed studies courses.

Course listing codes:

- (S) every semester
- (Y) yearly
- (AY) alternate years
- (IO) infrequently offered

COLLEGE OF ARTS AND SCIENCES COURSES

ANTHROPOLOGY (Anth)

Office: EKH 214A, 974-7460

Professors:

Daniel E. Brown, Ph.D.

Craig J. Severance, Ph.D.

Associate Professor:

Christopher A. Reichl, Ph.D.

The Anthropology program in the College of Arts and Sciences is designed to provide students with a broad, holistic, and scientific understanding of human culture and the human place in nature. Anthropology helps students gain a fuller understanding of human behavior through introductory and advanced courses in the subfields of archeology, cultural anthropology, linguistics and physical anthropology. Field courses in these subfields are designed to take advantage of the varied ecology and history and the rich multicultural environment of the Island of Hawai'i.

Major: 33 semester hours

- 12 semester hours introductory work or demonstrated proficiency at the 100-level in archaeology, physical anthropology, cultural anthropology, and linguistics; and
- An additional 21 hours of which 12 or more must be at the 300-level or above including Anth 475 and one anthropology methods course (Anth 445, 450, 470 or 482). With the approval of the advisor, 6 semester hours of these 21 may be from other disciplines.

Minor: 21 semester hours

Required Courses: 3 of the 4 introductory courses (Anth 100, 110, 115, 121) and 4 additional courses with at least two of the blocks represented.

Block I: Anth 200, 320, 322, 323, 330, 335, 356, 357, 386, 387, 390, 399, 445, 475, 485, 495, 499.

Block II: Anth 315, 384, 399, 415, 450, 495, 499.

Block III: Anth 321, 325, 331, 399, 495, 499.

Block IV: Anth 312, 385, 398, 399, 470, 482, 490, 495, 499.

A minimum GPA of 2.0 in minor courses is required.

100 Cultural Anthropology (3) (S)

Man as a cultural and social being. The major concepts and conclusions of cultural anthropology. Biological, social, and linguistic foundations of culture. Basic research methodology.

110 Archaeology (3) (S)

Prehistoric archaeology; methods and techniques of excavation and analysis; brief survey of man's cultural growth in prehistoric times.

115 Human Evolution (3) (S)

The evolution of humans and their position among the primates. Human adaptation to the environment both in the past and present. Human biology with an emphasis on variation and its sources.

121 Introduction to Language (3) (S)

Linguistically oriented approaches to human behavior, including ethnolinguistics, sociolinguistics, and psycholinguistics. The way language functions in culture, society, and the cognitive processes. (Same as Ling 121)

170 Music in World Culture (3) (Y)

Music of the non-Western world. Cultures surveyed include Polynesia, the Philippines, Indonesia, Pan-Islam, India, China, Korea, and Japan. (Same as Mus 170)

200 Cultures of the World: Regional Survey (3) (AY)

The traditional cultures of various geographic areas of the world. Specific regions to be announced each semester: (b) Oceania, (c) East Asia, (d) South East Asia, (e) South Asia, (f) North America, (g) Africa, (h) South America, (i) Other. (May be repeated for credit if subletters are different)

299 Directed Studies (1B3) (S)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

312 Origins of Civilization (3) (AY)

Origin and development of agriculture, chiefdoms, states, and ancient civilizations in the Old and New Worlds. Theories regarding development of complex societies.

315 Ecological Anthropology (3) (Y)

Relationship of man and the natural environment, particularly emphasizing the role of culture as a dynamic component in ecological systems. Pre: Anth 100 or 115, or consent of instructor.

320 Women and Anthropology (3) (AY)

A cross-cultural approach to the study of women from the perspective of Anthropology. Topics include gender roles, status of women in various societies, and women in evolution and prehistory.

321 Morphology and Syntax (3) (IO)

Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax, using data drawn from a wide variety of languages. Pre: Ling 203 or consent of instructor. Recommended: Ling 211 or 311. (Same as SpCo 321, Eng 321, Ling 321)

322 Comparative Religion (3) (IO)

Anthropological approach to comparative religions; comparative structural and functional analysis of religious phenomena. Theories of religion and magic. (Same as Rels 322)

323 Cultural and Social Change (3) (AY)

Various approaches to cultural and social change in nonliterate and modern societies; evolution, diffusion, acculturation, adaptation, revolution.

330 Social Organization (3) (AY)

Human social institutions, general principles of social interaction formulated from ethnographic data. Pre: Anth 100 or consent of instructor.

331 Language in Culture and Society (3) (Y)

An examination of the articulation of language in social and cultural context, including topics relevant to sociolinguistics and ethnolinguistics. Pre: Anth/Ling 121 or Eng/Ling 203 or consent of instructor. (Same as Ling 331)

335 Social Conflict (3) (IO)

Theories of conflict and conflict resolution are explored against the background of conflicts at all levels from small-group interaction to intertribal and international confrontations.

336 Political Anthropology (3) (AY)

A cross-cultural examination of political systems, political competition and dispute settlement. Consideration of political figures and political action in pre-state societies, early and modern states. Pre: Anth 100 and Pols 101 or consent of instructor. (Same as Pols 336)

340 Urban Anthropology (3) (IO)

A cross-cultural perspective on urbanism as an adaptive phase in human development. The course explores urban life around the world, rural-urban relationships problems and opportunities of city life. Special attention is devoted to Asian cities.

347 Pidgins and Creoles (3) (AY)

A study of the world's pidgins and creoles; the origin and nature of pidgins and creoles; the relationship of Hawaiian Creole English to other creoles in the world; the link between the development of a creole and language acquisition. (Same as Eng 347, Ling 347; recommended Ling 102 or 121)

356 Japan (3) (Y)

Culture origins and development with emphasis on contemporary Japanese culture. (Same as Jpst 356)

357 Change in the Pacific (3) (Y)

Peoples of the Pacific Islands with emphasis on contemporary cultures and social and political problems. Pre: consent of instructor.

358 Japanese Immigrants (3) (Y)

Examination of social and cultural adaptations of Japanese immigrant populations, with foci on Hawai'i and Brazil. Topics include the role of the Japanese government and emigration companies, the factors of generation, kinship, ethnicity, and contemporary Japanese migrants. (Same as Jpst 358)

384 Primatology (3) (AY)

Evolutionary approach to the nonhuman primates. Biological and behavioral adaptations of primates to their ecological setting. Implications of primate adaptations for understanding human biology and behavior. Pre: Anth 115, or Biol 150. (Same as Biol 384)

385 Hawaiian and Pacific Prehistory (3)(Y)

Archaeological overview of the cultures of the Pacific before European contact with an emphasis on Polynesia and Hawai'i.

386 Hawaiian Culture Before 1819 (3) (Y)

Hawaiian culture before the 1819 overthrow of the native Hawaiian religion: fishing and farming, political-economic organization and religion. Emphasis on early Hawaiian writers—Malo, Kamakau and 'I'i. Pre: Anth 100 or Haws 111 or consent of the instructor.

387 Modern Hawaiian Culture (1819 to present) (3) (Y)

Change and continuity in Hawaiian culture from 1819 to the present, in the context of interaction with non-Hawaiians. Major cultural transformations of the nineteenth century. Hawaiian culture in the early and later twentieth century. Pre: Anth 100 or Haws 111.

390 The Culture and Religion of Hawai'i's People (3) (IO)

Ethnological survey of the religions of Hawai'i from original settlement to the present. Relationship between religion and other aspects of culture. Prehistoric Hawaiian religion, its relationship with Christianity. Immigrant religions, changes, religious revitalization movements, and new introductions. (Same as Rels 390)

399 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

415 Medical Anthropology (3) (Y)

Approaches to health, disease and medicine in both Western and non-Western cultures including ecological, evolutionary and anthropological perspectives of disease. Pre: 9 credits in either anthropology or biology.

435 Senior Seminar in Pacific Studies (3) (AY)

A reading and research seminar under the supervision of the Pacific Islands Studies faculty aimed at demonstrating competence in research and writing on issues related to Pacific Islands environments, culture, society, and economy. Pre: consent of instructor for students near completion of Pacific Islands Studies Certificate coursework. (Same as Geog 435)

445 Ethnographic Field Techniques (3) (AY)

Techniques of anthropological field research; ethnographic literature and work with informants. Pre: Anth 100 or consent of instructor.

450 Physical Anthropology Laboratory (4) (AY)

Human biology of living and skeletal populations. Methods and techniques of quantitative and qualitative analysis of human anatomical, physiological and biochemical variation under field conditions. Pre: Anth 115 and consent of instructor.

470 Museology (3) (IO)

Museum training, including museum activities, exhibits, administration, custodial problems and interpretation. At least one field trip to Lyman House Museum. Pre: Anth 100 or 110, or consent of instructor.

475 History of Anthropological Theory (3) (Y)

Theory and method in anthropology; emphasis on cultural/social anthropology. Pre: Anth 100 and junior or senior standing, or consent of instructor.

482 Archaeological Research Methods (4) (AY)

Archaeological methods including research design, field methods such as survey, mapping and excavation, laboratory methods, and report writing. Requires two weekend trips. Pre: Anth 110 or permission of instructor.

485 Applied Anthropology (3) (AY)

Anthropological methods, concepts, and theories as they apply to the solution of contemporary human problems. Exploration of the use of anthropology in various occupational areas. Pre: Anth 100 and junior or senior standing, or consent of the instructor.

490 Internship in Archaeology (3-6) (S)

Placement and experience in public, private, and/or government agencies involved in archaeological research plus completion of related research project. Pre: Anth 110 plus instructor and departmental approval.

495 Proseminar (3) (AY)

Selected problems in current research: (b) archaeology, (c) linguistics, (d) social and cultural anthropology, (e) applied anthropology, (f) psychological anthropology, (g) physical anthropology, or (h) other areas of interest. Limited to anthropology majors or students with at least 9 semester hours of anthropology courses above 100-level. (May be repeated for credit if topics are different)

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

ART (Art)

Office: EKH 214, 974-7479

Professors:

Don Aanavi, Ph.D.

Wayne A. Miyamoto, M.F.A.

Associate Professor:

Michael D. Marshall, M.F.A.

The Bachelor of Arts degree in Art prepares students for graduate study in studio arts and continued study in areas of applied arts and art education.

The curriculum in Art is designed to provide students with an understanding of art theory, aspects of art history, and the fundamentals of studio practice. Lower division courses involve basic premises and aesthetics of different media, and the development of skills in the application and practice of studio art. Courses in the upper division continue to advance theory, media, and studio applications with greater exploration of individual expressions.

The program presently emphasizes the studio areas of painting, drawing, and printmaking. Other specific areas of study can be arranged through consultation with the Art Department and the College of Arts and Sciences.

Students should fulfill the Foundation Studio Program requirements as a block of 12 credits during their first two years of study. Students in their junior and senior year of study pursue individual work through the sequence of courses in studio practice. Students are encouraged to develop portfolios of their work during their studies.

Major: 42 semester hours

1. Foundation Program Studio: 12 semester hours
 - Art 121: FP Studio/Beginning Drawing
 - Art 122: FP Studio/Color Theory
 - Art 123: FP Studio/2-D Design Theory
 - Art 124: FP Studio/3-D Design Theory
2. Art History: 12 semester hours
 - Art 270: Aspects of Western Art
 - Art 280: Aspects of Asian Art
 - Art History - elective
 - Art History - elective
3. Studio Specialization: 18 semester hours including 6 semester hours upper division. Specialization in Drawing, Painting, Printmaking.

Note: The B.A. in Art requires a total of 30 credits of 300/400-level coursework because of the concentration of 100/200-level courses required in the major.

Minor: 24 semester hours

Block I: 121, 122, 123, 124 (12 semester hours)

Block II: Select one course from 101, 270, 280.

Block III: Select three studio courses numbered 200 or above (9 semester hours)

Introduction/Foundation

101 Introduction to the Visual Arts (3) (S)

Slide/lecture course and introduction to the visual arts in their various forms and expressions.

121 FP Studio: Beginning Drawing (3) (S)

Foundation Program Studio. Basic drawing concepts with studio investigations into line, shape, form, light and value, and space. Explorations of principles of visual organization and basic drawing media of pencil, charcoal, crayon, pen and ink, and brush and ink. Discussion of perceptual relationships of light and space.

122 FP Studio: Color Theory (3) (Y)

Foundation Program Studio. Inquiry into aspects and theories of color and its applications. Investigations of perceptual relationships of light, color, and space. Exploration of principles of visual organization encompassing color concepts.

123 FP Studio: 2-Dimensional Design (3) (Y)

Foundation Program Studio. Investigations of two-dimensional design concepts and the elements and principles of visual organization. Inquiry into perceptual and visual relationships of design principles. Discussion of relationships of visual elements and time and space.

124 FP Studio: 3-Dimensional Design (3) (Y)

Foundation Program Studio. Investigation of the principles and elements of design in three-dimensional concepts. Tactile exploration of forms, environments, and expressions. Explorations into perceptual relationships of time, light, and space in three-dimensional visualizations.

Drawing and Painting

213 Drawing I (3) (Y)

Studio drawing concepts and materials. Pre: Art 121.

214 Drawing II (3) (Y)

Life drawing and study of the human figure. Pre: Art 213. Repeatable for a total of 6 semester hours.

221 Painting Program Studio I (3) (Y)

Introduction to painting. Discussion of basic technical information. Development of studio familiarity with painting materials and concepts. Exploration of visual relationships of subject matter, content, and composition. Pre: Art 121, 122, 123.

222 Painting Program Studio II (3) (Y)

Intermediate painting studio. Continuing explorations of materials, concepts, and visual relationships. Pre: Art 221.

313 Advanced Drawing (3) (AY)

Studio practice of advanced and individual problems in drawing. Pre: Art 213. Repeatable for a total of 9 semester hours.

321 Painting Program Advanced Studio (3) (Y)

Studio practice of advanced and individual problems in painting. Pre: Art 213, 222. Repeatable for a total of 9 semester hours.

Printmaking

215 Printmaking: Intaglio (3) (Y)

Basic intaglio techniques of etching, engraving, drypoint, and aquatint; perceptual and conceptual exercises in composition and pictorial structure. Pre: Art 121, 123.

216 Printmaking: Lithography (3) (AY)

Basic lithographic techniques; development of concepts. Pre: Art 215.

315 Advanced Printmaking: Intaglio (3) (Y)

Advanced intaglio techniques involving more complex development of individual projects. Pre: Art 215. Repeatable for a total of 9 semester hours.

316 Advanced Printmaking: Lithography (3) (IO)

Advanced studio practice in independent projects. Pre: Art 216. Repeatable for a total of 9 semester hours.

Photography***Textiles/Fiber Arts*****Ceramics***

*Photography, Textile/Fiber Arts, and Ceramics courses are offered only through special arrangements with Hawai'i Community College or the summer session. Please consult with the Art Department for additional information.

History of Art**270 Aspects of Western Art (3) (Y)**

The development of western art and architecture, with emphasis on the impact of Christian traditions on the arts of classical Greece and imperial Rome; modes of artistic expression after the American and French Revolutions.

280 Aspects of Asian Art (3) (Y)

The history of form and content in various Asian cultures, with emphasis on the art and architecture of India and southeast Asia, and the expansion of Buddhist arts to China and Japan.

370 Modern Art (3) (AY)

A history of twentieth century European and American art to the present; relationships with earlier traditions. No prerequisites necessary for juniors and seniors. Others admitted by special permission.

375 Christianity and the Arts (3)

Relationships of the arts to Christian beliefs and ritual from early Christian era to the present; role of the artist, church, and patron. No pre-requisites for juniors and seniors; others admitted by special permission. (Same as Rels 375)

380 Art of China (3) (AY)

Chinese art from the Neolithic period to the Qing Dynasty, with emphasis on the Song and later periods. No pre-requisites necessary for juniors and seniors. Others admitted by special permission.

381 Art of Japan (3) (AY)

The history of art in Japan with emphasis on Buddhist art, the relationships between Chinese and Japanese arts. No prerequisites necessary for juniors and seniors. Others admitted by special permission. (Same as JpSt 381)

385 Religious Arts of East Asia (3) (AY)

Interrelationships of the arts and religion in various Asian cultures, with emphasis on Buddhism, Hinduism, Confucianism, Daoism, and Shinto. No pre-requisite necessary for juniors and seniors. Others admitted by special permission. (Same as Rels 385)

390 Seminar in Contemporary Art (3) (AY)

Focuses on the issues raised by contemporary art and traces historical/aesthetic developments from the beginning of the Modern period to the present. Assigned readings and lecture/discussion. Pre: Art 270, 280 or consent of the instructor.

485 Art of Islam (3) (AY)

Major developments in the arts and architecture of the Islamic world; relationships with the arts of Europe, Africa and Asia. Pre: Art 270 or consent of instructor. (Same as Rels 485)

Special Courses in Art**199 Directed Studies (1-3)**

Permission of instructor and statement of planned reading or research required.

299 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

300 Intermediate Studio Seminar (3) (IO)

Studio explorations in a variety of media including mixed media. Presentations, critiques, and assigned readings for the purpose of comparative study and discussion. Pre: Foundation Program Studios (Art 121, 122, 123, 124) and completion of two semesters of 200-level art studios.

326 Art in the Elementary School (3) (S)

Scope and organization of art in the elementary school curriculum; creative use of art media through lab experiences. Pre: Art 101 and admission into the Elementary Education Program. (Same as Ed 326)

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

426 Advanced Art Education Methods (3) (Y)

The integration of curricula across content areas through the application of two- and three-dimensional art media. Methods of creative curriculum design through laboratory experiences. Pre: Ed/Art 326 or consent of instructor. (Same as ED 426).

494 Special Topics in Art (1-3) (IO)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: consent of instructor.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

ASTRONOMY (Astr)

Office: LS2, 974-7383

Professor:

William D. Heacox, Ph.D.

Associate Professor:

Richard A. Crowe, Ph.D.

Two NASA-funded support programs are available to students seeking careers in astronomy and related fields. The Space Grant Fellowship Program offers competitive fellowships to students of exceptional promise, usually during their senior year; the fellowships provide a full tuition waiver and \$1000/semester stipend. Space Grant Fellows conduct a proposed research project under the supervision of a faculty mentor, and participate in University-wide Space Grant College symposia. The NASA-Hawaii Joint Venture (JOVE) Program supports student assistants in NASA-funded research with faculty astronomers. Students selected for the program are usually in their second or third year of study, and receive tuition waivers and stipends. Funding for travel to meetings is available from both of these programs.

The Space Science Center is a computing and instrumentation facility used by astronomy students and faculty. It features a stable of computers for student use, currently including 80486-based PC, Macintosh IICI, and SUN SPARC 2 machines, and substantial software packages for use in astronomy. The Center supports and maintains modern astronomical instruments for student use.

Minor in Earth and Space Science: 24 semester hours

Courses required for a minor in Earth and Space Science:

Astr 110L, 180, 181, 384, 386

Geol 111-111L, 112-112L, 205

110 General Astronomy (3) (S)

A survey of modern astronomy intended for non-science majors; the structure and evolution of the solar system, stars, stellar systems, and the Universe. If students desire to take Astr 110, 180, and 181, they may receive credit for Astr 110 only if it is taken prior to taking Astr 180 and Astr 181.

110L General Astronomy Laboratory (1) (1 3-hr. lab) (S)

Demonstration of astronomical principles through laboratory observations and analysis of astronomical data. Not required for Astr 110. Pre: credit or registration in Astr 110, Astr 180, or Astr 181.

130 Introduction to Space Science (3) (Y)

An introduction to space science and related subjects. Topics discussed are the contents of the solar system and of near-Earth space, history and physical principles of space flight, remote sensing of the Earth from space, space habitats and manned missions to the planets, the sociological impact of space exploration, and the prospects for life elsewhere in the Universe.

180 Principles of Astronomy I (3) (Y)

A survey of modern solar system astronomy with emphasis on the underlying physical principles. Topics discussed include the celestial sphere and aspects of the night sky, the structure and evolution of the Sun's planetary system, comparative planetology, and theories of the formation of planetary systems. Intended for science majors and prospective science teachers. The student should have a good operational familiarity with high school algebra. If students desire to take Astr 110, 180, and 181, they may receive credit for Astr 110 only if it is taken prior to taking Astr 180 and Astr 181.

181 Principles of Astronomy II (3) (Y)

A survey of modern stellar, galactic, and extragalactic astronomy, with emphasis on the underlying physical principles. Topics covered include stellar structure, interstellar environments and the formation of stars, stellar evolution and death, the structures of galaxies, and cosmology. Intended for science majors and prospective science teachers. The student should have a good operational familiarity with high school algebra. If students desire to take Astr 110, 180, and 181, they may receive credit for Astr 110 only if it is taken prior to taking Astr 180 and Astr 181.

250 Observational Astronomy (3) (Y)

An introduction to the tools and techniques of observational astronomy: astronomical time and coordinate systems, photometric systems and magnitudes, principles of telescopes and their operation, introduction to modern astronomical instruments, analysis of astronomical data. Coursework includes observations with small telescopes, and tours of the observatories on Mauna Kea. Pre: Astr 180, 181; Math 104G.

260 Computational Physics and Astronomy (3) (Y)

Computational techniques in physics and astronomy, with an emphasis on the use of computer engineering and scientific software. Topics covered include approximation techniques, numerical modeling of physical systems, solutions of non-linear and inverse problems, Fourier analysis and filtering, and elementary statistical and numerical concepts. Pre: 170/171, Math 205/206 (Same as Phys 260).

299 Directed Studies (1-3) (IO)

Permission of the instructor and a statement of planned reading or research is required. Pre: sophomore standing.

350 Stellar Astrophysics (3) (AY)

Stellar astronomy from a modern, physical viewpoint: principles of stellar structure; stellar energy sources and evolution; radiative transfer and the structure of stellar atmospheres; multiple and variable stars. Pre: Astr 181, Phys 271, Phys/Astr 260.

351 Galactic & Extragalactic Astrophysics (3) (AY)

The astronomy of galaxies and the large-scale structure of the Universe from a modern, physical point of view: the structure, contents, dynamics, and evolution of the Milky Way and of other galaxies; clusters of galaxies; the formation of galaxies; the extragalactic distance scale and the large-scale structure of the Universe; observational cosmology. Pre: Astr 181, Phys 271, Phys/Astr 260.

384 Comparative Planetology (3) (AY)

Study of the geology and geophysics of Earth-like planets and satellites in the solar system, with emphasis on understanding terrestrial geology in a broader, astronomical context. Topics covered: major processes determining structure and surface features of planets and techniques for remote sensing. Pre: Geol 112, Astr 180 (Same as Geol 384).

386 Comparative Planetary Atmospheres (3) (AY)

Study of the structure, dynamics, and evolution of the atmospheres of solar system planets and satellites, with emphasis on understanding the climatology and meteorology of the Earth in a broader, astronomical context. Discussions will include the stability of the Earth's climate and techniques of remote sensing. Pre: Geol 112, Astr 180 (Same as Geol 386).

399 Directed Studies (1-3) (IO)

Permission of the instructor and a statement of planned reading or research is required. Pr: Junior standing.

400 Observatory Internship (1-6) (IO)

Cooperative education experience with student employed in an astronomical observatory or research facility on the Island of Hawai'i. One credit is granted for each full-time working month, or equivalent thereof, to a limit of 6 credits (such credits may not be counted as upper-division Astr electives for the purpose of fulfilling that requirement for the B.S. degree or minor in Astronomy). Pre: consent of department.

432-433 Senior Laboratory/Thesis Project (2-2) Yr. (Y)

Individual research projects conducted in the college laboratory, library, or observatory; or at an external research facility; under the direct guidance of a member of the physics and astronomy faculty or an affiliated faculty member. Students must propose and complete a research project, and present a final report to the department. Permission of the department is required for registration (same as Phys 432-433).

440 Planetary Remote Sensing (3) (IO)

Principles and practices of remote sensing of the surfaces and atmospheres of the terrestrial planets, with special emphasis on Earth remote sensing and on image analysis and interpretation with computer assistance. Topics covered include the interaction of electromagnetic radiation with surfaces and atmospheres; active and passive remote sensing systems; the interpretation of multi-spectral data; image analysis and computer enhancement; remote sensing platforms and the Earth Observation System. Pre: Astr 180, Phys 330, 331, Phys/Astr 260.

450 Instruments and Techniques (3) (AY)

A course in current astronomy observational instruments and techniques, with emphasis on "hands-on" use of instruments to acquire data with research telescopes on Mauna Kea. Topics covered include optical and infrared photometric instruments, CCD and IRCCD cameras, astronomical spectrographs and interferometers, advanced data analysis. Pre: Astr 250, Phys 331, Phys/Astr 260.

460 Gravitation and Cosmology (3) (IO)

An introduction to Einstein's General Theory of Relativity, with emphasis on astronomical applications: the curvature of space-time and the principle of equivalence; gravitational collapse and black holes; the large-scale structure of the Universe; modern cosmology. Pre: Phys 270, Math 232.

470 Astrodynamics (3) (IO)

An introduction to the applications of gravitational dynamics: celestial mechanics; the dynamics of stellar systems; orbits and trajectories of spacecraft. Pre: Phys 271, Phys/Astr 260, Math 300.

494 Special Topics in Astrophysics (3) (IO)

Detailed study of selected topics in astrophysics, to be chosen by the instructor. Course content will vary, and may be repeated for credit, provided a different topic is studied. Pre: permission of instructor.

495A-495B Seminar (1-1) YR. (S)

Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as Chem 495A-495B, Geol 495A-495B, Math 495A-495B, and Phys 495A-495B).

499 Directed Studies (1-3) (IO)

Permission of the instructor and a statement of planned reading or research is required. Pre: Senior standing.

BIOLOGY (Biol)

Office: LS2, 974-7383

Professors:

John G. Chan, Ph.D.
Leon E. Hallacher, Ph.D.
Don E. Hemmes, Ph.D.

Associate Professor:

John F. Scott, Ph.D.

Assistant Professors:

William J. Mautz, Ph.D.
Donald K. Price, Ph.D.

Instructor:

Grant C. Gerrish, Ph.D.

The Biology program provides the student with "hands-on" training in a wide variety of disciplines ranging from natural history of the Hawaiian Islands to cell biology and microbiology. Small class sizes allow students to accompany professors to tide pools to study marine invertebrates and algae and to work individually on the scanning and transmission electron microscope. Upper division biology majors are encouraged to participate in research projects directed by the faculty. The program prepares students for further study in graduate schools in the biological sciences, as well as professional schools in medicine, dentistry, veterinary medicine, and other health related programs. The program also provides the scientific background for high school biology teaching.

Instruction in biology includes a variety of classroom, laboratory, and field work which emphasizes the unique terrestrial and marine environment of Hawai'i. Classes in natural history plan day-long excursions into volcanic areas and tropical rain forests to study plant succession and unique biomes. Marine biology classes take advantage of the University's Marine Options Program which features SCUBA diving, cruises on oceanographic vessels, and fish and sea turtle surveys. Minority students headed for professional careers in the health sciences may apply for participation in the Minority Schools Biomedical Research Support Program funded by the National Institutes of Health.

Major: (B.S. Option) 41 semester hours in biology and 50 semester hours in other specifically related courses.

The following are required of all majors who seek the B.S. degree in Biology; Biol 125, 150-150L, 153-153L, 157, 275-275L, 281, 380, 410-410L, 415-415L, 466-466L, 495A and 495B; General Chemistry (Chem 124+-124L, 125+-125L); Organic Chemistry (Chem 241-241L, 242-242L); Quantitative Analysis (Chem 330-330L); Physical Chemistry (Chem 350-350L or Chem 351-351L); General Physics (Phys 170+-170L+, 171+-171L+); Calculus (Math 205+-206+, SpCo 151+, Eng 309+).

Courses marked with a + also fulfill general education requirements.

The B.S. option is recommended for students seeking a Biology degree with a stronger emphasis in mathematics and physical sciences, and/or who plan to pursue graduate studies in cell and molecular biology.

Major: (B.A. Option) 38 semester hours in biology

The following are required for all majors who choose to seek the B.A. degree in Biology; Biol 125, 150-150L, 153-153L, 275-275L, 281, 380, 410-410L, 415, 466, 495A, 495B, a minimum of one additional advanced laboratory course chosen from 415L or 466L, and a minimum of two units of biology elective as a lecture course, laboratory course, or directed research; general chemistry (Chem 124-124L, 125-125L), organic chemistry (Chem 241-241L, 242-242L); college physics (Phys 106-170L, 107-171L) or general physics (Phys 170-

170L, 171-171L); and applied calculus (Math 115) or calculus (Math 205).

The following is also recommended: (I) majors planning to pursue graduate studies in cell and molecular biology take both Biol 415L and 466L, Math 205-206, courses in quantitative analysis and physical chemistry (Chem 330-330L and 350-350L or 351-351L), and at least two semesters of directed research (Biol 399 or 499); (II) majors planning to pursue graduate studies in conservation biology, ecology, and evolution, or marine biology take additional electives in those subject areas chosen from Biol 157, 171-171L, 181, 250, 264, 301-301L, 309, 360, 366, 371-371L, 372, 382, and at least two semesters of directed research (Biol 399 or 499); and (III) majors planning to apply to medical/dental/veterinary school take human anatomy and physiology (Biol 243-243L and 244-244L) and participate in volunteer and shadowing experiences in the local medical/dental/veterinary community as appropriate.

Minor: 21 semester hours in biology

Required: Biol 125, 150-150L, 153-153L, 275-275L, 281 and three additional semester hours of biology in courses numbered above Biol 150.

No University of Hawai'i at Hilo biology courses numbered below 125 are required for, or credited toward, the major or minor in Biology.

101 General Biology (3) (S)

A one-semester introductory biology course for non-majors.

101L General Biology Laboratory (1 3-hr. lab) (1) (S)

Laboratory for General Biology. (Optional but recommended)

102 Human Health and Disease (3) (Y)

Introduction to current problems of human infections, such as the AIDS epidemic, non-infectious disease and the individual's role in maintaining health.

125 Introduction to Cell and Molecular Biology (3)(Y)

Introduction to cell and molecular biology for majors in the natural and health sciences. Cell structure and function, the molecular basis of life, metabolic pathways, classical and molecular genetics, the molecular and biological evolution of the universe. Pre: high school Biology (or Biol 101), high school Chemistry (or Chem 114).

150 Principles of Zoology (3) (S)

The biology of animals; kinds of animals, their structure, evolutionary relationships, physiology, ecology, and development.

150L Principles of Zoology Laboratory (1 3-hr. lab) (1) (S)

Laboratory for Principles of Zoology. Required for majors.

153 General Botany (3) (S)

Plant cells, photosynthesis, genetics, plant structure and development, growth regulation and growth responses, uptake and transport in plants, ecology, and diversity of the plant kingdom.

153L General Botany Laboratory (1 3-hr. lab) (1) (S)

Demonstrations and experimentation to illustrate lecture topics. Required laboratory for General Botany.

156 Natural History of the Hawaiian Islands (3) (Y)

The formation of the Hawaiian Islands establishment and evolution of their native flora and fauna, effects of man.

156L Natural History Field Trips (1) (IO)

Field trips for Natural History of the Hawaiian Islands.

160 Identification of Tropical Plants (3) (AY)

General techniques of identifying plants, with special emphasis on plants in Hawai'i important to man: medicinal and poisonous plants, weeds, crop plants.

171 Marine Biology (3) (S)

Marine plants and animals: classification, structure, physiology, ecology and adaptations to the marine environment. This course satisfies CAS general education requirements in the Natural Sciences. (Same as Mare 171)

171L Marine Biology Laboratory (1) (Y)

Provide students with direct exposure to the biota of Hawai'i via laboratory and field trips to sites around Hilo. The course focuses on the identification, natural history, and ecology of common marine organisms. Pre: current or previous enrollment in Biol/Mare 171. (Same as Mare 171L)

181 Conservation Biology (3) (Y)

Fundamentals of ecosystem and community ecology applied to the conservation of biodiversity; basic tools and concepts used in the scientific management of endangered species and sensitive ecosystems. High school biology recommended.

190 Hawaiian Marine Field Experience (1) (Y)

Provides a unique opportunity for students to experience the marine environment of the Big Island. Course consists of field trips to coastal and underwater sites around the island. Some swimming and snorkeling involved but not required. (Same as Mare 190)

194 Special Topics in Biology (1-3)

Topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied.

199 Directed Studies (1-3)

Permission of instructor and statement of planned reading required.

201L Oceanography Laboratory (2) (Y)

The basic techniques of oceanography including: marine charts and navigation, bathymetry, marine sediments, techniques for measuring salinity, temperature, dissolved oxygen, and surface and deep circulation, wave dynamics, plankton sampling and identification, marine fishes and invertebrates, and marine wildlife management techniques used in tagging sea turtles. Field trips required. Pre: concurrent or previous enrollment in Mare 201. (Same as Mare 201L)

205 General Entomology (2 lec, 1 3-hr. lab) (3) (S)

(Entomology 304, College of Agriculture, may be taken for biology credits as Biol 205.)

243-244 Human Anatomy and Physiology (3-3) Yr. (Y)

The anatomy and physiology of the major human organ systems and physiological processes. Pre: Biol 243 or equivalent or consent of instructor is a prerequisite for Biol 244.

243L-244L Human Anatomy and Physiology Laboratory (1 3-hr. lab) (1-1) Yr. (Y)

Laboratory study of human anatomy (including microscopic) and physiology. Pre: enrollment in Biol 243-244.

250 Statistical Applications in Marine Science (3) (AY)

Hands-on approach to design field experiments, collect ecological data, analyze microcomputer data using statistical methods, and presentation of results. Requires completion of an independent project, using data collected in the field followed by the preparation of both written and oral reports. (Same as Mare 250)

254 Animal Nutrition (2 lec., 3-hr lab) (3) (Y)

(Animal Science 244, College of Agriculture, may be taken for biology credit as Biol 254.)

264 Quantitative Underwater Ecological Survey Techniques (QUEST) (3) (Y)

The application of commonly utilized near shore underwater ecological surveying techniques using scuba. Intensive two-week course combining lecture and field work. Data will be collected in the field, reduced, analyzed and presented in an oral report. (Same as Mare 264)

275 Fundamentals of Microbiology (3) (S)

A survey of microbiology with emphasis on bacteria, viruses, infectious diseases and their control. Pre: one semester of college chemistry.

275L Fundamentals of Microbiology Laboratory (1 3-hr. lab) (1) (S)

Required laboratory for Fundamentals of Microbiology.

281 General Ecology (3) (Y)

General ecological and evolutionary principles. Relationships of plants and animals to their environments. Processes regulating growth and evolution of populations. Community structure and function. Pre: Biol 150 or 153. High school algebra or equivalent is recommended.

299 Directed Studies (1-3)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

309 Biogeography (3) (IO)

(Geography 309 may be taken for biology credit as Biol 309.)

323 Mammalian Physiology (3 lec., 3-hr lab) (4) (Y)

(AnSci 350, College of Agriculture, may be taken for biology credit as Biol 323.)

357 Evolution (3) (Y)

Organic evolution as a unifying theory of biology. Topics include the history of ideas of evolution, adaptation of populations, genetic drift, molecular evolution and the neutral theory, quantitative genetics, speciation and phylogeny, biogeography and macro-evolutionary trends, and mass extinctions. Pre: Biol 150 or 153.

360 Marine Resources (3) (IO)

A survey of man's use of the marine environment including physical and biological resources. Topics covered include: fisheries, mariculture, marine mineral and energy resources, chemical resources of sea water, the use of coastal lands and waste disposal in the sea. Pre: Mare 201 or Biol/Mare 171, or consent of instructor. (Same as Mare 360)

364 Advanced QUEST (3) (Y)

Students lead a dive team learning underwater ecological surveying techniques; supervise field data collection, data reduction and analysis, and team presentation of written and oral reports; and assist in training students in identification of marine organisms. Pre: Scuba certification, UH diving certification, current CPR/first aid. Pre: Biol/Mare and consent of instructors. Students receive CR/NC for the course. (Same as Mare 364)

366 Tropical Marine Research Investigations (3) (Y)

Research projects on marine-related problems. Students will do a literature search; develop experimental design; collect, reduce and analyze data; do a written final report; and present findings at a symposium. Projects will be selected from a list of topics or can be original with the consent of the instructor. Pre: consent of instructor. (Same as Mare 366)

371 Biology of Marine Invertebrates (3) (AY)

Survey of the major groups of invertebrates, focusing on those dominant in the marine environment. Identification, classification, anatomy, physiology, and natural history of the major groups. Pre: Mare/Biol 171 or Biol 150 or equivalent. (Same as Mare 371)

371L Biology of Marine Invertebrates Laboratory (1) (AY)

Direct exposure to the major groups of invertebrates in the marine environment, focusing on those present in Hawai'i. Identification, classification anatomy, physiology, and natural history of the major groups. Pre: concurrent or previous enrollment in Mare/Biol 371. (Same as Mare 371L)

372 Biology of Marine Plants (3) (AY)

Diversity, distribution and ecology of marine macroalgae and seagrasses. Student will learn methods to identify common marine plants of the Hawaiian Islander and the tropical Pacific. Marine plants and their relationship to human affairs will be discussed. Pre: Mare/Biol 171 or Biol 153 or consent of instructor.

380 Biostatistics (3) (S)

Statistical analysis as applied to research in the biological sciences. Theory and applications of statistics; experimental design; basic statistical concepts; multi-variate analyses and non-parametric analyses. Group and independent projects, analyzing data using micro-computers. Pre: Math 103 or equivalent.

382 Marine Ecology (3) (AY)

The ecology of marine systems with emphasis on the interactions between organisms in biological communities and the environment. Pre: Biol 171 or equivalent or consent of instructor. (Same as Mare 382)

384 Primatology (3) (AY)

Evolutionary approach to the nonhuman primates. Biological and behavioral adaptations of primates to their ecological setting. Implications of primate adaptations for understanding human biology and behavior. Pre: Biol 150, or Anth 115 or 215. (Same as Anth 384)

392 Biology and Philosophy (3) (AY)

Philosophical examination of the implications of modern biology for how we understand ourselves and our relations to the natural world. Evolutionary, genetic, developmental, and ecological topics will be discussed. Pre: previous work in Philosophy or Biology, or consent of the instructor. (Same as Phil 392)

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

410 Biochemistry (3) (Y)

Basic compositions and functions of biological matter, metabolic interconversions and transformations; the bioenergetics involved and the levels of control over these processes. Pre: Biol 125, Chem 242 and Phys 107 or 171, or consent of instructor. Chem 330 and 350 or 351 recommended.

410L Biochemistry Laboratory (1 4 hr. lab plus 2 or more hours to be arranged as needed per week) (2) (Y)

Electrometric titration and chromatographic analysis of amino acids, analysis of proteins, assay, purification and kinetic analysis of enzymes, plus an individual project. Required laboratory for Biochemistry. Pre: concurrent enrollment in Biol 410 and completion of Chem 242L and Phys 171L or consent of the instructor. Chem 330L and 350L or 351L recommended.

415 Cell Biology (3) (Y)

Ultrastructural and molecular aspects of cell membranes, cellular energetics, cell mobility, cellular synthesis and growth, and cell division. Pre: Biol 410.

415L Cell Biology Laboratory (1 1 hr. lecture and 1 3 hr. lab) (2) (Y)

Light and electron microscopy of selected cells. Optional laboratory for Cell Biology.

417 Plant Anatomy (4) (Y)

(Horticulture 437, college of agriculture, may be taken for biology credit as Biol 417.)

425 Water Quality and Aquatic Productivity (2 lec., 1 lab) (3) (Y)

(Aquaculture 425, College of Agriculture, may be taken for biology credit as Biol 425.)

450 Physiology of Reproduction (3) (Y)

Mammalian reproductive anatomy and physiology; emphasis on the laboratory and domestic animal species and on the human. (AnSc 450, College of Agriculture, may be taken for biology credit as Biol 450.)

466 Genetics (3) (Y)

Classical, molecular, and population genetics. Pre: Biol 410.

466L Genetics Laboratory (2 3 hr. labs) (2) (Y)

Classical genetics including crosses with flies, yeast, bacteria, and bacterial viruses. Molecular genetics including DNA gel analysis. Each student also participates in an individual or group research project. Optional laboratory for genetics. Pre: Biol 410L and concurrent enrollment in Biol 466 or consent of the instructor

475 Fish Population Dynamics (2 lec., 1 lab) (3) (Y)

(Aquaculture 475, College of Agriculture, may be taken for biology credit as Biol 475.)

484 Biology of Fishes (3) (AY)

The biology of marine and freshwater fishes. Topics covered include: general anatomy, locomotion, respiration, osmoregulation, sensory systems, reproduction, electrosensitive and electrogenic fishes, coloration and bioluminescence in fishes, migratory patterns, trophic ecology, territorial behavior, and phylogenetic interrelationships. Pre: Biol/Mare 171 or Biol 150 or their equivalent, or consent of instructor. (Same as Mare 484)

484L Biology of Fishes Laboratory (1 3-hr. lab) (1) (IO)

Anatomy of jawless, cartilaginous and bony fishes. Review of common local reef fishes. Optional laboratory and field trips for Biology of Fishes. (Same as Mare 484L)

494 Special Topics in Biology (1-3)

Advanced topics chosen by the instructor. The course content will vary and may be repeated for credit, provided that a different topic is studied.

495A Seminar (1) (S)

Lectures, discussions and research reports of topics in biology presented by faculty, students, and visiting scholars. Students attend seminars and receive CR/NC grade for the course.

495B Seminar (1) (S)

Lectures, discussions, and research reports of topics in biology presented by faculty, students and visiting scholars. Each student must attend seminars and present a talk to receive a CR/NC grade for the course.

499 Directed Studies (1B3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

BUSINESS ADMINISTRATION (GBus)

Office: EKH 270, 974-7400

Professors:

Harry W. Hennessey, Jr., Ph.D.
Stephen C. Hora, D.B.A.
Walter Kunitake, Ph.D.

Associate Professors:

Jerry M. Calton, Ph.D.
James M. Fordyce, S.M.
Judith A. Hora, M.S., C.P.A.
Robert King, D.B.A.
Marcia Y. Sakai, Ph.D.
Robert T. Stack, Ph.D.

Assistant Professors:

Hsin-chih Huang, Ph.D.
Steven P. Landry, Ph.D.

Students in the Business Administration program take a course of study that follows the guidelines of the American Assembly of Collegiate Schools of Business. Approximately one half of the course work taken for the BBA is in business subjects, the other half is taken in a variety of fields which provide the BBA graduate with a broad liberal education.

All BBA students are required to complete the pre-business program which is composed of courses in accounting, economics, business communications, business law, mathematics and quantitative business applications, as well as the general education requirements of the College of Arts & Sciences. Following completion of this program, students are admitted to the upper division business program where they complete advanced courses in selected fields of study such as accounting, finance, marketing, management, and computer and quantitative methods.

Bachelor of Business Administration: To earn a Bachelor of Business Administration degree, a student must acquire 124 semester hours, complete the earlier listed general education requirements for any baccalaureate degree, and satisfy the following Pre-Business and Professional BBA degree requirements.

Pre-Business Program**I. Basic Requirements****A. Communication Skills** (6 semester hours)

1. English composition requirement (Eng 100) must be fulfilled before completing 24 credits.
2. SpCo 151.

B. Quantitative and Logical Reasoning (6 semester hours)

Math 115 and QBA 260.

C. World Cultures (6 semester hours)

Courses selected from the following: Anth 100; Anth/Mus 170; Eng 253/253W, 254; Geog 102; Hist 151, 152; Hon 200, 201, 202; Rels 152, 153.

II. Area Requirements**A. Humanities** (12 semester hours)

1. The Arts (3 semester hours): Art 101, 121, 122, 123, 270, 280; Dram 170; Eng 370; Haws/Mus 175, 176; Anth/Mus 170; Mus 160, 163, 180.

2. Thought, Knowledge and Values (3 semester hours): Haws 111, 211, 213; Hon 200, 201, 202; Phil 100, 101, 200, 201, 220, 230; Rels 152, 153; WS 151.
3. Literature and Languages (6 semester hours): Anth/Ling 121; Eng/Ling 203, Eng 200, 251, 252, 253/253W, 254, 351, 352; Fr 101, 102; Haw 101, 102, or 107; Hon 200, 201, 202; Jpns 101, 102 or 105, 131, 132; Span 101, 102.

B. Social Sciences (12 semester hours)

Econ 200 and 201 and one course from two (2) of the following disciplines:

- Anthropology 100, 115, 121 (also Ling 121)
- Geography 101, 103, 105
- History 151, 152
- Political Science 101, 102, 220, 230
- Psychology 100
- Sociology 100, 240, 260

C. Natural Sciences (10 semester hours)

One course from three (3) of the following disciplines (one course with a laboratory):

- Astronomy 110, 110L, 130, 180
- Biology 101, 101L, 150, 150L, 153, 153L, 156, 157, 171
- Chemistry 111, 111L, 114, 114L, 124, 124L
- Computer Science 100
- Geology 111, 111L, 200, 200L
- Marine Science 201
- Physics 106, 115, 170L

III. Pre-Business Core Requirements (15 semester hours)

Acc 250, 251; CS 101; Eng 309; Mgt 240

Professional Business Program

To be admitted into the upper-division BBA degree program, and to begin the Business Core, candidates must have completed Math 115, QBA 260, Eng 100, SpCo 151, Econ 200, 201, Acc 250, 251, CS 101, Eng 309, and Mgt 240 with a grade of "C" or better. In addition, students must have completed 55 hours of university level coursework with a minimum GPA of 2.5.

I. Business CORE Requirements (30 semester hours)

- A. Mgt 300, 333; Mkt 310; Fin 320; QBA 360, 361, 362.
- B. Econ 300 or Econ 340.
- C. Mgt 423 or Soc 423 or Phil 425.
- D. Mgt 490 or 491.
- E. Each Business CORE course must be completed with a grade of "C" or better.

II. Business Electives (15 semester hours)

Students are to select, with the assistance or consent of their advisor, at least 15 semester hours of Business electives at the 300-400 level to be completed during their junior and senior years. Three semester hours of Business electives may be 300-400 level ECON courses. Students must achieve a 2.0 cumulative GPA for all Business elective courses.

III. General Electives (up to 12 semester hours)

Students may select up to 12 semester hours of general elective courses in consultation with their advisor.

Total Semester Hours Required by the BBA Degree: 124

Residence Requirement: BBA candidates must complete at least 24 or the credits used to satisfy upper-division Business core and Business elective requirements while in residence at UH Hilo.

Business Administration Minor (21 semester hours)

Students pursuing non-Business degrees may minor in Business by completing the following courses with a grade of at least "C" in each course: Acc 250 and 251; Econ 201; Mgt 300 and 333; Mkt 310; and Fin 320.

Accounting (Acc)

250 Financial Accounting (3) (S)

Accounting theory and methods used to record and report financial information; methods for valuing the assets, liabilities, and ownership of an organization. Pre: CS 101 (CS 101 may be taken concurrently with Acc 250).

251 Managerial Accounting (3) (S)

Methods for evaluating financial performance including cost accounting, budgeting, breakeven analysis, ratio analysis, and sources and uses of funds. Pre: Acc 250.

350 Intermediate Accounting I (3) (Y)

The accounting process and the application of generally accepted accounting principles to assets and liabilities. Emphasis upon accounting theory. Pre: Acc 251 and junior standing.

351 Intermediate Accounting II (3) (Y)

The application of generally accepted accounting principles to accounting for owner's equity, long-term investment and debt, funds flow, consolidations, and financial statement analysis. Pre: Acc 350 and junior standing.

352 Individual Income Tax (3) (Y)

Principles and practices involved in the determination of federal income taxation and tax planning as it applies to individuals including the concept of gross income, exclusions, deductions, credits, property transactions and sole proprietorships. Pre: Acc 250 and junior standing.

353 Cost Accounting (3) (Y)

Cost accounting system output relevant to managerial decision making, planning and control. Topics include job order and process costing, direct and standard cost systems, with emphasis on application and analysis of cost. Pre: Acc 251 and junior standing.

354 Small Business Accounting (3) (IO)

Practical applications of general ledger systems and financial statements for small businesses. Firms of various industries will be used as examples. Different types of business organizations will be reviewed. Pre: Acc 250 and junior standing.

358 Governmental Accounting (3) (Y)

Accounting principles as applied to nonprofit organizations, including government. Emphasis on budgetary control and fund accounting. Pre: Acc 251.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

450 Advanced Accounting (3) (AY)

The application of generally accepted accounting principles to specialized accounting entities: partnerships, branches, affiliated companies, estates and trusts; and to special topics. Pre: Acc 351.

454 Auditing (3) (Y)

Auditing concepts including standards, objectives, and ethics for external auditors. Emphasis on reporting standards, internal control, evidence, statistical sampling, and EDP audits. Pre: Acc 350.

494 Special Topics in Accounting (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: varies with topic.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Business (Bus)**100 Introduction to Business (3) (IO)**

A study of business functions, methods of business operation, types of business ownership, and the role of business organizations in contemporary society.

Finance (Fin)**220 Personal Finance (3) (IO)**

A managerial concept is applied to personal financial affairs; traditional life-cycle approach is structured in terms of a personal balance sheet model; begins with various tools and techniques of planning and ends with the ultimate disposition of the estate; brief case problems are used for illustration. Pre: sophomore standing.

320 Principles of Business Finance (3) (S)

Introduction to functions and techniques of business finance: financial analysis and planning, working capital fundamentals, risk and return, time value of money, capital budgeting, short term and long term financing decisions, and dividend theory. Pre: Acc 251, Econ 201, QBA 260 (Business minors may substitute equivalent course), junior standing.

321 Investment and Security Analysis (3) (Y)

Fundamentals of the securities market; development of skills needed to analyze current portfolios and potential investments. Topics include risk reduction, investment analysis, security valuation, portfolio management and option/futures speculation. Pre: Fin 320 and junior standing.

322 Corporate Finance (3) (Y)

Development of tools to help the potential manager analyze and solve financial problems. Topics include financial planning, capital budgeting, investment decision making, asset valuation and merger/take-over analysis. Pre: Fin 320 and junior standing.

325 Small Business Finance (3) (IO)

Application of financial principles to small business firms; Topics include planning, valuation, investment decision making (fixed and working capital investments) and procurement of funds. Pre: Fin 320 and junior standing.

370 Principles of Real Estate (3) (Y)

Real estate principles including legal, physical, and economic elements, as well as concepts of valuation, market analysis, and finance. Examined are public and private externalities affecting the allocation and utilization of real estate resources. Pre: Fin 320 and junior standing.

371 Real Estate Investments & Finance (3) (Y)

Application of the investment process to produce the optimal decision for the investor in choosing among alternatives. Topics include market research, forecasting cash flows, tax considerations, measuring investment performance, and the risk element. Pre: Fin 370 and junior standing.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

494 Special Topics in Finance (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: varies with topic.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Management (Mgt)**240 Business Law (3) (S)**

The law of contracts, agency and employment, and the elements of property and government regulation. Law of business organizations, with emphasis on partnerships and corporations and law of sales and commercial paper. Pre: sophomore standing.

300 Business Management (3) (S)

Basic economic, social, and political concepts of business and industry in the organizational setting. Emphasis upon the analysis of the management process with special concern given to human resources and the universality of management. Pre: junior standing.

330 Personnel Management (3) (Y)

The contemporary theory and practice relating to the management of human resources: recruiting, selection, psychological testing, interviewing, job evaluation, performance review, training and development, wage and salary administration, benefit and service programs, and labor-management relations. Pre: Mgt 300 and junior standing.

332 Organizational Behavior and Management (3) (Y)

The human relations movement; basic concepts in behavior pertaining to organizations including personality, motivation, leadership, communication, change, conflict, and group dynamics. Course includes the relationship of these concepts to performance, job satisfaction and organizational commitment. Pre: Mgt 300 and junior standing.

333 International Business Management (3) (S)

Provides a systematic introduction to international business management, drawing examples from Pacific Rim business and commerce. Course introduces multinational marketing and international aspects of personnel management, plus introductory material on international business financial transactions. Pre: Mgt 300 and junior standing.

379 History of American Business (3) (AY)

The American free enterprise system from its European origins; the role of business and finance in American expansion; relations of business and finance with labor and government. (Same as Hist 379).

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

423 Business and Society (3) (S)

Impact of business on society and the impact of the societal environment on business operations and decision making. Pre: junior standing. (Soc 323 or Phil 425 may be substituted for this course in the professional core.)

490 Strategic Management (3) (S)

Integrative capstone course using concepts of strategy formulation, competitive analysis, and strategy implementation as models for problem solving and decision making in an organizational setting. Computer software applications are used to aid in comprehensive case analysis. Pre: Mgt 300, Mkt 310, Fin 320, QBA 361 and senior standing.

491 Small Business Policy (3) (Y)

The administrative organization and the management of small business with attention to sponsors and sources of help for small business; entrepreneurship; financial, marketing, human relations, and risk management; franchising; government regulation and compliance; and social responsibility. Development of a business plan via case study will be emphasized. Pre: Mgt 300, Mkt 310, Fin 320, QBA 361 and senior standing.

494 Special Topics in Management (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: varies with topic.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Marketing (Mkt)**310 Principles of Marketing (3) (S)**

Fundamental marketing concepts and contemporary marketing issues are analyzed within present economic, social and legal environments; consumer and functional analysis are emphasized. Pre: Econ 201 and junior standing.

311 Marketing Strategy and Control (3) (Y)

Planning and evaluation of marketing strategy with a special emphasis on using marketing information and research. Procedures for developing the analysis and solution to common strategy problems involving pricing, distribution, product development and promotion, as well as social issues. Pre: Mkt 310 and junior standing.

312 Retailing Management (3) (Y)

Principles, functions, and analysis of problems in retailing: location and layout, merchandise planning, buying and selling, organization, expense analysis and control, coordination of store activities. Pre: Mkt 310.

313 Promotional Strategy (3) (Y)

The role of promotion in an organization's communication processes from a theoretical and managerial perspective. Advertising, personal selling and sales promotion are analyzed from the view of both the organization and its consumer groups. Pre: Mkt 310 and junior standing.

314 Marketing Channels of Distribution (3) (Y)

The concepts and theoretical foundations of the relationships among suppliers, manufacturers, processors, wholesalers, retailers, and consumers. Also, channel decision and distribution policies in the interest of the consuming public and the organization are discussed. Pre: Mkt 310 and junior standing.

315 Consumer Behavior (3) (Y)

An integrated framework for understanding consumer behavior from a marketing perspective. Course focuses on environmental issues, as well as consumer decision processes. Pre: Mkt 310.

316 Services Marketing (3) (Y)

Marketing function within a service organization, designing the service product, and establishing service price, communication and distribution policies. Distinctions are developed between marketing strategies of service and goods-oriented organizations, and between "for-profit" and "not-for-profit" organizations. Pre: Mkt 310 and Mgt 300.

319 Marketing Research (3) (Y)

An overview of the marketing research process as part of an organization's decision support systems. Topics include research design, attitude measurement, along with data sources, collection and analysis. A research application component will emphasize the planning, execution, and analysis of a real-world marketing research project. Pre: Mkt 310 and junior standing.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

494 Special Topics in Marketing (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: varies with topic.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Quantitative Business Analysis (QBA)**260 Business Statistics (3)(S)**

Application of statistics to business. Includes an introduction to probability and sampling; descriptive statistics, inference, regression and one-way analysis of variance. Pre: Math 115 and CS 101.

360 Management Science (3) (S)

Mathematical modeling of business decisions. Classical multivariable optimization, linear programming, decision theory, simulation, and additional selected topics. Pre: QBA 260.

361 Production and Operations Management (3) (S)

The production and operations management activities. Applications and limitations of problem solving and decision making concepts pertaining to the acquisition, allocation, use, and evaluation of resources. Pre: Mgt 300 and QBA 360 and junior standing.

362 Business Systems and Procedures Analysis (3) (AY)

Examination of business information subsystems and the role of computers in accounting, marketing, production, and financial subsystems; theory of general management information systems. Pre: Acc 250 and 251.

363 Decision Analysis (3) (AY)

Modeling of decisions using decision trees, backwards induction, and utility functions. Topics include the use of Bayes' Theorem, structuring decisions, univariate and multi-attribute utility functions, the value of information, sensitivity analysis, and behavioral aspects of decision making. Pre: QBA 360.

364 Business Database Management (3) (AY)

The use of computer based systems for business transaction processing and data management. Topics include five structure, database concepts, end-user programming tools, interface design, system analysis and design, and data management issues including privacy, security, integrity, law, and ethics. Pre: QBA 362.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

494 Special Topics in Quantitative Business Analysis (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: varies with topic.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Tourism (Tour)**317 Marketing and Management of Travel and Tourism (3) (S)**

Principles of marketing and management applied in hotel/motel, resort, restaurant, travel, transportation, tourism and leisure industries. Course looks at who travels, where and why. Focus is on cases involving both small and large firms in the travel and tourism area. Pre: Mkt 310.

320 Tourism Economics (3) (AY)

Microeconomics of travel: determinants of demand, empirical studies, demand forecasting; production cost analysis, market structure in major travel industries. Macroeconomic impacts. Pre: Econ 201.

340 International Travel and Tourism Policy (3) (AY)

Tourism in international trade, legal environment of international travel, political implications of tourism, social and cultural aspects of tourism, public and private policy issues for developed and developing destinations. Pre: junior standing or consent of instructor.

399 Directed Studies (1-3)

Statement of planned reading or research is required. Pre: junior standing and consent of instructor.

494 Special Topics in Tourism (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: varies with topic.

499 Directed Studies (1-3)

Statement of planned reading or research is required. Pre: senior standing and consent of instructor.

CHEMISTRY (Chem)

Office: W16, 974-7596

Professors:

Edward Herlicska, Ph.D.

Associate Professor:

Ernest B.S. Kho, Jr., Ph.D.

Assistant Professor:

Leonore A. Findsen, Ph.D.

The Chemistry Program offers two majors designed to meet the differing needs of students. Each leads to a B.A. degree in Chemistry. The *Chemistry* major offers a traditional curriculum whose requirements are described below. The *Chemistry-Health Sciences* major combines the study of chemistry with 18 semester hours of selected biology courses. Chemistry majors may apply for Initial Basic teaching certificates in elementary and secondary education in the State of Hawai'i in collaboration with the UH Hilo Teacher Education Program.

Major: 45 semester hours of chemistry**Required:**

1. Chem 124-124L, 125-125L, 241-241L, 242-242L, 330-330L, 331-331L, 351-351L, 352-352L, 421, and 495A-B.
2. A minimum of six additional semester hours in chemistry courses above the 200-level. (By agreement with the department, the student may substitute courses in related areas.)
3. Math 205, 206, and 231.
4. Phys 170-170L and 171-171L.

Additional recommended courses include at least eight semester hours of a foreign language (French, Spanish, or Japanese); Eng 309; CS 210 and 210L; and Math 300 and 311.

Chemistry Major-Health Sciences: 36 semester hours of chemistry**Required:**

1. Chem 124-124L, 125-125L, 241-241L, 242-242L, 330-330L, 331-331L, 350-350L, and 495A-B.
2. A minimum of three additional semester hours in chemistry courses above the 200-level: Chem 341 or Chem 441 is recommended.
3. Math 205 and either Math 206 or 121.
4. Phys 106-170L and 107-171L.
5. Biol 243-243L, 244-244L, 410-410L and 466-466L.

Additional recommended courses include at least eight semester hours of a foreign language (French, Spanish, or Japanese); Eng 316; CS 210 and 210L; and Math 300 and 311.

Chemistry Minor: 22 semester hours of chemistry**Required:**

Chem 124-124L, 125-125L, 241-241L, 242-242L, and one 4-credit chemistry course with laboratory at the upper division level.

111 Chemistry for Non-Science Majors (3) (IO)

A basic principles course designed for students in the humanities and social sciences. Current problems and the factors affecting them are presented from a simplified chemical viewpoint.

111L Chemistry for Non-Science Majors Laboratory (1 3-hr. lab) (1) (IO)

Laboratory principles and techniques presented from the non-science major viewpoint. When possible, experiments will involve everyday phenomena.

114 Introductory Chemistry (3) (S)

Introduction to basic chemical principles. Pre: algebra recommended but not required.

114L Introductory Chemistry Laboratory (1 3-hr. lab) (1) (S)

Introduction to basic chemical laboratory principles and techniques. Pre: concurrent registration in Chem 114.

124-125 General Chemistry I, II (4-4) Yr. (S)

A mathematically rigorous introduction to chemistry designed for majors in the natural sciences. Includes one hour of recitation per week. Pre: high school chemistry (or Chem 114) and high school algebra (or Math 103 or 104) or placement by exam. Concurrent registration in Chem 124L-125L. (Chem 124 and 124L satisfy General Education requirements)

124L-125L General Chemistry Laboratory I, II (1 3-hr. lab) (1-1) Yr. (S)

Experiments illustrating the fundamental principles and techniques of chemistry. Pre: concurrent registration in Chem 124-125.

141 Survey of Organic Chemistry and Biochemistry (3) (Y)

Brief introduction to organic chemistry, and selected topics in biochemistry of interest to students in health and related fields. Pre: Chem 114 (or high school chemistry).

141L Organic Chemistry and Biochemistry Laboratory (1 4-hr. lab) (1) (Y)

Introduction to Organic Chemistry and Biochemistry laboratory principles and techniques. Pre: concurrent registration in Chem 141.

241-242 Organic Chemistry (3-3) Yr. (Y)

The study of carbon compounds. Topics include molecular structure, stereochemistry, molecular spectroscopy, reactions and methods of preparation of principal classes of organic compounds. Reaction mechanisms. Pre: Chem 125-125L or consent of instructor.

241L-242L Organic Chemistry Laboratory (1 4-hr. lab) (1-1) (Y)

Techniques of organic chemistry, including synthesis and qualitative analysis. Applications include spectroscopy and chromatography. Pre: concurrent registration in Chem 241-242.

299 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

330 Quantitative Analysis (2) (Y)

The principles of modern quantitative analysis. Pre: Chem 125-125L and concurrent registration in Chem 330L.

330L Quantitative Analysis Laboratory (2 3-hr. lab) (2) (Y)

The techniques of modern quantitative analysis. Pre: concurrent registration in Chem 330.

331-331L Instrumental Analysis (2 lec., 2 3-hr. lab) (4) (Y)

Introductory instrumental analysis for chemistry majors but recommended for other natural science majors. Pre: Chem 330-330L or consent of instructor.

341-341L Qualitative Organic Analysis (2 lec., 2 3-hr. lab) (4) (IO)

Identification and characterization of organic compounds and mixtures by chemical and spectroscopic techniques. Pre: Chem 242-242L or consent of instructor.

350 Physical Chemistry for the Life Sciences (3) (AY)

Principles and theories of Physical Chemistry as applied to the life sciences. For Chemistry majors and other natural science majors. Pre: Chem 242, Math 205 or consent of instructor.

350L Physical Chemistry for the Life Sciences Laboratory (1 4 hr lab) (1) (AY)

Laboratory techniques in Physical Chemistry with emphasis in the life sciences. Pre: Chem 125L and Chem 350, which may be taken concurrently.

351 Physical Chemistry I (3) (AY)

Principles and theories of physical chemistry at the macroscopic level such as thermodynamics, phase equilibria, and kinetics. For chemistry majors and other physical science majors. Pre: Chem 242, Math 206, which may be taken concurrently, or consent of instructor. Phys 171 is recommended.

351L Physical Chemistry Laboratory (1 4 hr. lab) (1) (AY)

Laboratory techniques in physical chemistry at macroscopic level. Pre: Chem 351, which may be taken concurrently.

352 Physical Chemistry II (3) (AY)

Principles and theories of physical chemistry at the microscopic level such as quantum mechanics, molecular spectroscopy, and reaction dynamics. For chemistry and other physical science majors. Pre: Chem 351, Phys 171, Math 231, which may be taken concurrently, or consent of instructor.

352L Physical Chemistry Laboratory (1 4 hr. lab) (1) (AY)

Laboratory techniques in physical chemistry at microscopic level. Pre: Chem 352, which may be taken concurrently.

361 Radiochemistry and Nuclear Reactions (3) (IO)

Radioactive decay processes, radiation effects and detection, and nuclear phenomena including applications. Pre: Chem 352L or consent of instructor.

371 Analog Chemical Instrumentation (3) (IO)

Servo systems, solid state devices, including operational feedback controls. Emphasis placed on devices used in modern laboratory research. Pre: Chem 352-352L and Phys 171.

394 Special Topics in Chemistry (3) (IO)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: junior standing and consent of instructor.

399 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

421 Intermediate Inorganic Chemistry (3) (AY)

The classification of inorganic compounds, description and fundamental theories. Course includes molecular orbital consideration. Pre: credit or concurrent registration in Chem 352. Math 206 is recommended.

441 Intermediate Organic Chemistry (3) (IO)

The study of more advanced topics in organic chemistry, such as physical organic chemistry, natural products, advanced synthesis, macromolecules, and molecular spectroscopy. Pre: Chem 242.

451 Intermediate Physical Chemistry (3) (IO)

Advanced topics in Physical Chemistry such as chemical kinetics, molecular spectroscopy, electrochemistry, thermodynamics and statistical thermodynamics, surface chemistry, and crystallography. Pre: Chem 352 or consent of instructor.

471 Digital Chemical Instrumentation (3) (IO)

The concepts of digital systems and instrumentation from simple switching devices, such as semiconductor diodes and transistors, to the latest high speed integrated circuits. Principles of digital measurement will be stressed. Pre: Chem 371.

495A-495B Seminar (1-1) Yr. (S)

Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as Astr 495A-495B, Phys 495A-495B, Geol 495A-495B and Math 495A-495B)

499 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

COMPUTER SCIENCE (CS)

Office: LS2, 974-7383

Professors:

Bill H. Chen, Ph.D.
Judith L. Gersting, Ph.D.
John M. Gersting, Ph.D.
George T. Koide, Ph.D.

The Computer Science program is designed to provide training for students (1) to be able to write well-documented, well-organized and readable programs that work correctly and efficiently; (2) to know what general types of problems are amenable to computer solutions and to be familiar with the various tools necessary for solving problems; and (3) to possess a basic knowledge of theoretical foundations of computer science, algorithms, data structures, software design, the concepts of programming languages, and computer elements and architecture. The program follows closely the undergraduate curriculum recommended by professional computing organizations and societies. With marketable skills, students are normally in great demand and usually start at a high entry level.

To earn a bachelor of science degree in computer science, a student must acquire 126 semester hours, must complete the earlier listed general requirements for any baccalaureate degree, and must satisfy the following requirements.

I. General Education Requirements (65 semester hours)**A. Communication Skills (9 semester hours)**

1. English composition on requirement (Eng 100); must be fulfilled before completing 24 credits.
2. SpCo 151
3. Eng 309

B. Quantitative and Logical Reasoning (8 semester hours)

Math 205, 206

C. World Cultures (6 semester hours)

Selected from Anth 100; Anth/Mus 170*; Eng 253, 253W, 254; Geog 102; Hist 151, 152; Hon 200, 201, 202; Rels 152*, 153

D. Humanities (12 semester hours)

1. **The Arts** (3 semester hours) Selected from Art 101, 121, 122, 123, 270, 280*; Dram 170; Eng 370; Haws 175, 176*; Anth/Mus 170*; Mus 160, 163, 175*, 176*, 180
2. **Thought, Knowledge, and Values** (3 semester hours) Selected from Haws 111*, 211*, 213*; Hon 200, 201, 202; Phil 100, 101*, 200, 201, 220, 230; Rels 152*, 153; WS 151
3. **Literature and Languages** (6 semester hours) Selected from Anth/Ling 121; Eng/Ling 203; Eng 200, 251, 252, 253, 253W, 254, 351, 352; Hon 200, 201, 202; Fr 101 102; Haw 101*, 102*, 107*; Jpns 101*, 102*, 105*, 131B132; Span 101, 102

E. Social Sciences (12 semester hours)

One course each from four of the following disciplines:

1. Anth 100, 115, 121, Ling 121
2. Econ 100, 200, 201
3. Geog 101, 103, 105
4. Hist 151, 152
5. PolS 101, 102*, 220, 230
6. Psy 100
7. Soc 100, 240, 260

F. Natural Sciences (18 semester hours)

Phys 170, 170L, 171, 171L; Chem 124, 125

II. Computer Science Program Requirements (55 semester hours)**A. Mathematics (9 semester hours)**

Math 311, 321, 407

B. Computer Science Required Courses (37 semester hours)

CS 150, 151, 215, 266, 321, 410, 420, 430, 450, 460, 461, 470, 495

C. Computer Science Electives (9 semester hours)

Two courses from CS 411, 421, 431, 451, 471, and one 400-level computer science course not previously selected.

III. General Electives (6 semester hours)

Any course offered by UH Hilo College of Arts and Sciences not used to fulfill the above requirements.

IV. Additional Requirements

- A. Minimum 2.0 cumulative GPA and 2.0 or better in every major course as stipulated in part II.
- B. 45 Upper Division credits
- C. Hawaiian-Asian Pacific Requirement*

*Item meets the Hawaiian/Asian/Pacific Requirement; see the Dean*s complete listing for other courses.

Cooperative Education Option

The CS degree may be attained with relevant work experience included in the program during the junior and/or senior years if the student so elects after completing the following:

- I. **Cooperative Education Seminar CS 295 (1 semester hour)** Required prior to admission into the co-op program. Concepts of cooperative education, resume writing, job interviewing, and job performance skills. Credit earned does not count toward the Computer Science degree.
- II. **Computer Science Co-op Required Courses (27 semester hours)** Math 205, 206; CS 150, 151, 215, 266, 321; SpCo 151; Eng 309

These courses must be completed with a B average and the candidate must have an overall cumulative GPA of 2.5. The CS faculty will assess maturity and readiness before job placement is considered. Although employment positions will be identified by the University, all application and interview procedures will be handled by the student.

During the work experience, the student will be enrolled in CS 400 and attain one credit per each month employed or its equivalent. Job duties and performance will be monitored by the CS faculty. Neither CS 295 nor 400 apply to Computer Science graduation requirements.

Consult any CS faculty for more detailed information.

Minor (18 semester hours)

Students pursuing non-Computer Science degrees may minor in Computer Science by completing the following requirements with a GPA of at least 2.0:

1. CS 150, 151, 215, 321
2. Two upper-division Computer Science electives for a total of 6 credits.

100 Principles of Computer Science (3) (S)

General survey of the entire field of computer science. Principles of machine architecture, human/machine interface, data organization, and their interrelationship. Intended for those who seek "literacy" in computer science. (Satisfies General Education Natural Science requirement)

101 Microcomputer Applications Software (3) (Y)

Use of modern software applications, including word processing, spreadsheets, database, and Internet access.

110 Visual Basic Programming (3)

An introduction to window-based programming using Visual Basic. Topics covered includes the Visual Basic environment, user-interface design, data types, scope, control structures, data structures, files, graphics. Pre: Math 103.

150 Software Design and Implementation I (3) (S)

First course in software design and implementation for computer science majors. Emphasis on analysis, design, coding, testing, and debugging of software solutions to problems. Concepts covered include simple and structured data types, control structures, iterative processes, simple sort/search and list processing in a high level structured language. Significant laboratory work required.

151 Software Design and Implementation II (3) (S)

Continuation of CS 150. Recursion, dynamic memory allocation, sort/search, simple structured data types: strings, stacks, queues, trees and graphs. Significant laboratory work required. Pre: CS 150.

210 Scientific Computer Programming (3) (AY)

Introductory computer programming for physical science applications. FORTRAN programming language. Pre: Math 205 or consent of instructor. (Same as GE 253)

215 Discrete Mathematics (3) (Y)

Basic concepts of discrete algebraic structures. Topics chosen from areas such as logic, induction, relations, combinatorics, graph theory, boolean algebra, algebraic structures. Pre: Math 205.

220 Business Data Processing (3) (IO)

Basic business data processing principles. Programming in business-oriented language. Pre: CS 110.

220L Business Data Processing Laboratory (1 3 hr. lab) (1) (IO)

Laboratory to accompany CS 220. Pre: Concurrent registration in CS 220.

266 Computer Organization and Assembly Language (2 lec., 1 3 hr. lab) (3) (Y)

Organization and machine language of typical computers; assembly language programming techniques; interrupts; input/output. Pre: CS 150.

280 Basic Circuit Analysis (3 lec., 1 3 hr. lab) (4) (IO)

Linear circuits, time-domain analysis, transient and steady state response, phasors, impedance and admittance, network or system functions, frequency response and filtering, resonance. Pre: Math 206. (Same as EE 211)

281 Basic Lab Measurements and Technique (3 lec., 1 3 hr. lab)(4) (IO)

Basic electronic measurements. Characteristics of electronic components including resistors, inductors, capacitors, diodes, and transistors, and elementary circuit application. Pre: CS 280. (Same as EE 213)

295 Cooperative Education Seminar (1) (Y)

Concepts of cooperative education, resume writing, job interviewing, and job performance skills. Required prior to admission into the co-op program. Credit earned does not count toward the degree in Computer Science. Pre: sophomore standing.

299 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

321 Data Structures (3) (Y)

Basic concepts of space/time efficiencies. Advanced data structures such as threaded trees, B trees, B+ trees, generalized trees, graphs, etc. Analysis of space/time efficiencies of sort/search methods. Hashing. Significant laboratory work required. Pre: CS 151, 215.

400 Cooperative Education Experience (1-12 var.) (Y)

Supervised cooperative education experience. One credit is granted for every full-time working month to a limit of 12 credits. All job positions must be approved. Credits earned do not count toward the degree in Computer Science. Pre: B average in CS 150, 151, 215, 266, 295, 321, Math 205, 206, SpCo 151, Eng 309; cumulative GPA of 2.5; and consent of instructor.

410 Elements of Computer Architecture (2 lec., 1 3 hr. lab) (3) (AY)

Logic circuit analysis and design; flip-flops, registers, counters, microprocessors, basic machine architecture. Pre: CS 215, 266.

411 Microprocessor Interface Design (2 lec., 1 3 hr. lab) (3) (IO)

Interfacing of microcomputer with peripherals; D/A and A/D converters; parallel and serial I/O ports; operational amplifiers; transducers; solid-state devices. Pre: CS 410.

420 File Management (3) (AY)

File processing concepts and techniques on bulk storage devices. Pre: CS 321.

421 Database Management System Design (3) (AY)

Concepts and structures necessary to design and implement a database management system. Pre: CS 420.

430 Operating Systems (3) (AY)

Operating systems functions; CPU scheduling, memory management, deadlocks, concurrent processes, concurrent programming, and distributed systems. Pre: CS 266, 321.

431 Computer Networks and Data Communications (3) (AY)

Problems and approaches in data and computer communication; layered approach to network architecture; algorithms for error control, routing, flow control; circuit packet switching, local area networks, internetworking. Pre: CS 321.

440 Artificial Intelligence (3) (IO)

Fundamental concepts of artificial intelligence including problem solving, heuristic search and knowledge representation. Discussion of applications such as game playing, theorem proving, and knowledge based expert system. Pre: CS 321.

450 Organization of Programming Languages (3) (AY)

Programming language specifications and analysis. Pre: CS 321.

451 Compiler Theory (3) (IO)

Organization and design of a compiler. Pre: CS 450.

460 Software Engineering I (3) (Y)

Emphasizes planning, analysis, and design phases of the Software Development Life Cycle with one model of the SDLC covered. Goal is to learn tools and techniques for sound requirement assessment and, working as a team, produce a verified design of a real software product. Pre: CS 321, Eng 309.

461 Software Engineering II (3) (Y)

Emphasizes implementation, installation and maintenance phases of the SDLC covered in CS 460. Goals are to learn specific techniques and tools for product development testing, measurement and documentation. Team will complete product. Pre: CS 460.

470 Theory of Computing (3) (AY)

Study of various models of computation and their relation to formal languages: finite automata, pushdown automata, Turing machines, regular, context-free, and recursively enumerable languages. Unsolvability, NP completeness. Pre: CS 321.

471 Analysis of Algorithms (3) (AY)

Tools for analysis of algorithm efficiency; worst-case and average-case analysis; decision trees and adversary arguments for lower bounds; algorithms drawn from sorting, searching, selection, graphs, string matching, polynomials, matrix multiplication. Dynamic programming and parallel algorithms. Pre: CS 470.

482 Computer Graphics (3) (IO)

Principles for the design, use, and understanding of graphics systems. Both hardware and software components are examined. Pre: Math 311 and CS 321.

494 Special Topics in Computer Science (1-3) (AY)

Advanced topics chosen by instructor. Course content will vary. May be repeated once for credit provided that a different topic is studied.

495 CS Professional Seminar (1) (Y)

Computer Science and Software Engineering are careers demanding technological and ethical application of computer hardware, software and human factors. Course emphasis is on entry into and growth in these careers showing the balancing of needs amongst technology, employee, employer and society. Pre: senior standing.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

DANCE (Danc)CSee Performing Arts**DRAMA (Dram)CSee Performing Arts****ECONOMICS (Econ)**

Office: EKH 250, 974-7400

Professors:

Jon T. Cauley, Ph.D.

Youngki Hahn, Ph.D.

David L. Hammes, Ph.D.

Eric Iksoon Im, Ph.D.

Associate Professor:

Marcia Y. Sakai, Ph.D.

Students of Economics follow a curriculum that provides a foundation for methodical, analytical, and critical thinking about societies and institutions. Lower division courses include principles of economics, mathematics, statistics, along with the general education requirements. Upper division students have the opportunity of taking advanced economics courses in many specialty areas. Students may simultaneously complete the secondary teaching credential in cooperation with the University's Teacher Education Department.

Major: 30 semester hours in Economics and 7 semester hours of related courses

- 1. Required:** Math 121 or QBA 260, Math 205-205L, Econ 200, 201, 300, 301, 305, 390.
- 2. Electives:** 12 semester hours in upper division economics courses.

Minor: 18 semester hours

- 1. Required:** Econ 200, 201.
- 2. Electives:** 12 semester hours of Econ 300-400 level economics courses which should include one from each group: (I) Econ 301, 302, 360, 370, 380; (II) Econ 300, 310, 340.

Certificate in Environmental Policy and Political Economy (24 semester hours):

The Certificate in Environmental Policy and Political Economy is designed for students who want to develop both substantive and methodological expertise in the analysis and study of environmental problems. In consultation with an advisor, students design a study program that enables them to specialize in the environmental problem or study area of their choice.

Required courses: PoIS 230, 435 and 402 or 403; Econ 370, 380 and 330 or 350.

Students must either complete PoIS 481 and 490 or six units of Econ 494 and/or Econ 499. These courses are to be taken together near the end of the student's program, preferably the last semester.

There are a variety of courses outside the political science and economics disciplines that students in the Environmental Policy and Political Economy Subject Certificate Program would benefit from taking. See your academic advisor or a member of the political science or economics department for details. Suggested courses include: AnSc 229; For 202; Soil 461; Biol 281, 360; Geog 101, 326, 340; Geol 200; Hist 484; Anth 315; and Phil 325.

100 Introduction to Economics (3) (S)

Economic principles for non-majors. Emphasis on the applications of theory to problem solving. (Not more than 3 credits may be granted for completion of both Econ 100 and Econ 150 at Hawai'i Community College.)

200 Introduction to Macroeconomics (3) (S)

The functioning of economic systems with emphasis on the forces determining levels of, and changes in, national income, employment and the price level. Pre: Econ 201.

201 Introduction to Microeconomics (3) (S)

How individual prices are determined. Efficient consumer-producer decision making.

210 The Global Economy (3) (AY)

An introductory course for non-majors: fundamentals of supply and demand; international trade and finance; current global economic problems such as poverty, income distribution, and pollution; dynamics of economics and politics; economic cooperation.

300 Intermediate Macroeconomic Theory (3) (Y)

Determination of income, employment, price levels; fiscal and monetary policies. Pre: Econ 200.

301 Intermediate Microeconomic Theory (3) (Y)

Price determination under monopoly, oligopoly, and competition. Analysis of demand and cost. Pre: Econ 201.

302 Managerial Economics (3) (AY)

Application of economic and statistical concepts for business decisions. Subjects cover projection of demand and production, case analysis, problems of forecasting, multifactors and multiproducts, technological change: capital budgeting, input-output analysis, and programming techniques. Pre: QBA 361; and Econ 201.

305 The History of Economic Thought (3) (Y)

The ideas and theories of major contributors to economic thought since the mid-18th century. The development of economic thought and the interrelationships between the several branches of economic theory. Pre: Econ 200, 201.

310 Economic Development (3) (Y)

Analysis of growth, structural change, development patterns, foreign investment, foreign trade, and development policies and strategies; emphasis on Far East and South Pacific Islands. Pre: ECON 200, 201.

320 Survey of Economic Problems (3) (Y)

An application of economic analysis to a number of pressing social and economic problems; e.g., pollution, poverty, transportation, etc. Pre: Econ 100 or 200 or 201.

330 The Hawaiian Economy (3) (Y)

Analysis of the local and state economy in terms of structure; problems and issues as they relate to the U.S. mainland and international arena. Pre: Econ 200, 201.

340 Money and Banking (3) (S)

Relation of monetary system to price level, employment and income; nature and functions of money and banking; role of money in international trade and inflation. Pre: Econ 200.

350 Urban-Regional Economic Analysis (3) (IO)

Locational analysis of economic activity. Metropolitan and regional growth and development. Pre: Econ 200, 201.

360 International Trade and Welfare (3) (Y)

Theoretical analysis of international trade, current international economic problems, and trade impact on international welfare. Pre: Econ 200, 201.

361 International Finance (3) (Y)

Balance of payments, foreign exchange rate policies, and their impact on domestic employment, inflation, internal and external balances, and other related topics. Pre: Econ 200, 201.

370 Government Finance (3) (Y)

An explicit introduction to the behavior and objectives of government in the economic system. Analysis focuses on the rationale of nonmarket institutions and on the two groups of agents that operate government, the politicians and the bureaucrats, as these agents allocate expenditures for government activities.

380 Natural Resource and Environmental Economics (3) (AY)

An analytical framework for examining the relationships among environmental quality, natural resource use, and economic and political systems; analysis of circumstances that give rise to environmental problems, resource use conflicts, and possible policy solutions to these problems and conflicts. The course will emphasize issues pertaining to Hawai'i. Pre: Econ 201.

381 Labor Economics (3) (AY)

Labor market analysis; demand for, and supply of labor, determination of wages, trade unions and collective bargaining; Human capital investment, household production theory, mobility and migration. Specific applications to Hawai'i. Pre: Econ 201.

390 Econometrics (3) (Y)

Use of mathematical and statistical techniques to test the reality of economic theory, forecasting, tests of hypotheses. Pre: Math 121 or QBA 260.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

410 Economic Development for Asian and Pacific Nations (3) (AY)

An examination of critical issues and problems confronting developing countries of the Asian and Pacific regions. Students are expected to pursue a specific issue/problem and develop it into a research paper. Pre: Econ 310.

420 Mathematical Economics (3) (AY)

Equilibrium analysis, comparative-static analysis, dynamic economic analysis, unconstrained and constrained optimization, input-output analysis, linear and non-linear programming, game theory, etc. Pre: Econ 200, 201, or Math 205-205L or Econ 301.

430 Business Cycles and Applied Economic Forecasting (3) (IO)

Examination of the seasonal and cyclical aspects of economic activity, business cycle theories, and economic indicator series; examination of various techniques for developing applied economic forecasting models. Pre: Econ 200 and 390.

440 Monetary Theory (3) (AY)

Theories of money at the individual and aggregative (or national) levels. For advanced Economics majors. Pre: Econ 301, 340.

494 Special Topics in Economics (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: Econ 200, 201. Senior standing and consent of instructor.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

EDUCATION PROGRAM (Ed)

Office: PB-2, 974-7582

Associate Professors:

Nina K. Buchanan, Ph.D.
Jan L. Zulich, Ph.D.

Assistant Professor:

Alice J. Kawakami, Ph.D.

Instructors:

Connie Maple, M.A.
T. Marcia Miller, M.A.

The Teacher Education Program at the College of Arts and Sciences is a post-baccalaureate program designed to qualify students for the Initial Teacher's Certificate issued by the Department of Education of the State of Hawai'i. Certificates may be issued in either elementary teaching (grades kindergartenB6) or secondary teaching (grades 7B12). Candidates seeking certification in areas listed below designated by an asterisk (*) must fulfill specific supplemental requirements as outlined in sections entitled "Supplemental Requirements for Secondary Education..." and "Liberal Studies - Elementary Education." **Beginning Fall 1997, elementary candidates seeking admission to the Teacher Education Program must fulfill specified core requirements regardless of major or degree** (see Liberal Studies - Elementary Education). Students must major in one of the following academic disciplines as approved by the State of Hawai'i for the UH Hilo program:

Agriculture
Art
English
Hawaiian Studies
Japanese Studies
Liberal StudiesCElementary Education (Elementary Certification only)*
Mathematics
Music*
Sciences
 Biology
 Chemistry*
 Geology
 Natural Science
 Physics
Social Studies*
 Anthropology
 Economics
 Geography
 History
 Political Science
 Psychology
 Sociology
Speech*

*Requires supplemental course work

Admission

Application materials are available at the UH Hilo Admissions Office. The deadline is February 1 for Fall entry. Prospective applicants who miss the February 1 deadline will be put on a waiting list upon completion of application file. Applicants on this waiting list will be interviewed on a space available basis pending available openings following the assessment and acceptance of qualified candidates from the February 1 applicant pool. Admission to the Basic Certification programs in the Elementary or Secondary fields occurs once a year and enables a cohort of full-time students to go through instructional and field experiences together during Fall and Spring semesters. Applicants must have completed or be in the process of completing through current enrollment all degree and

supplemental requirements (as defined below) by Spring graduation preceding the Fall semester entry to the program. This **excludes** the use of course credits from the summer term immediately preceding the Fall semester entry to the program. Applicants will be evaluated competitively, based on the following criteria:

- Completion of application packet
- Appropriate major, determined by accrediting agency and listed above
- Completion of baccalaureate
- Completion of supplemental requirements:
 - Elementary* Specified core requirements beginning Fall 1997 admission cycle.
 - Secondary* Specific courses required for certification areas designated in the aforementioned list of majors approved by the State of Hawai'i.
- Minimum cumulative GPA of 2.75, or equivalent for last 60 credit hours at time of application. For students enrolled in course work, the 2.75 GPA must be maintained for entry into the Teacher Education Program
- Minimum major GPA of 2.75
- Passing scores established by State Department of Education on Communication Skills and General Knowledge sections of the National Teacher's Exam, Praxis Series, or Pre-Professional Skills Test
- Interview with Education faculty

Cohort Model: Initial Basic Certification

The Basic Certification process for both Elementary and Secondary Teacher Education is a two-semester intensive professional program. Students are admitted for the Fall term only (see Admission above), and must be full-time students during both the Fall and Spring terms. Assuming successful progress in the program, students are recommended for certification at the end of the Spring term.

Once admitted, students must begin their course of studies in the Fall and progress through the program in consecutive semesters. Failure to complete the program in a single year may result in dismissal. Once dismissed, students must reapply and must satisfactorily fulfill all admission requirements to gain re-entry. Students admitted but unable to attend in the Fall, may petition the Department to have their entry postponed for one year. Such petitions are not automatically accepted and students are not permitted to postpone entry for more than a year.

Participants are required to be full-time students during both semesters. During this time students are expected to devote all their energies and efforts to the coursework, field experiences, and other requirements of the program. There are no elective courses in the Basic Certification programs, with all students taking the same courses. The coursework is carefully integrated with the field experiences and other components of the program thereby making part-time program involvement and/or stopping out incompatible with both the professional integrity and design of the program.

Academic Status and Progression Policies

Grades below "C" will not be accepted in courses designated to fulfill certification requirements. Required courses for the Initial Basic Certificate, unless designated "credit/no credit," may *not* be taken on a "credit/no credit" basis. A 3.0 GPA must be maintained in all cohort program course work. A student whose GPA in education courses falls below 3.0 may be dismissed from the program. In order to enroll in Education courses, students must be fully admitted into the Teacher Education Program. Students must progress through the Basic Certification program experiences in two consecutive semesters. Spring semester enrollment is based on recommendation of Education faculty. A student may be removed from a field experience when, in the judgment of the Education faculty, Department of Education cooperating teacher, and school principal

the student is disrupting the educational process or is not making satisfactory progress toward meeting the requirements of the program. Such removal may result in complete dismissal from the program.

Readmission Policies

Students who stop out of the University must reapply to the Teacher Education Program and meet all criteria in effect for the respective Admission deadline.

Supplemental Requirements for Elementary Certification (for those holding degrees other than Liberal Studies-Elementary Education from UH Hilo)

Core requirements (See Liberal Studies-Elementary Education Major)

Supplemental Requirements for Secondary Certification in Social Studies, Music, Chemistry-Health Sciences, and Speech and Communication

Those seeking Initial Basic certification in the **Social Studies** area (inclusive of majors in Anthropology, Economics, Geography and Planning, History, Political Science, Psychology and Sociology) must complete the following additional requirements:

- 6 sem. hrs. Hist 151-152
- 6 sem. hrs. Hist 281-282
- 6 sem. hrs. Hist upper division courses (rec. Hist 374, 3 cr.)

Those seeking Initial Basic certification in **Music** must complete the following additional requirements:

- Methods: Mus 123, 151, 152, 153, 155, 156 (11 sem. hrs.)
- Conducting: Mus 390, 391 (4 sem. hrs.)
- Music Education: Mus 337 (3 sem. hrs.)

Those seeking Initial Basic certification in the **Chemistry-Health Sciences** area must complete the following additional requirements:

- | | |
|-----------------|----------------------------------|
| Astr 110 | Astronomy (3) |
| Biol 153 & 153L | General Botany (3) and Lab (i) |
| Geol 111 & 111L | Physical Geology (3) and Lab (i) |

Those seeking Initial Basic certification in **Speech and Communication** must complete the following additional requirements:

- 3 sem. hrs. Eng 200
- 6 sem. hrs. Eng 251-252 or 253-254 or 351-352
- 3 sem. hrs. Eng 315 or 482
- 3 sem. hrs. Eng 420 or 425
- 3 sem. hrs. Eng 461 or 462

NOTE: Some of the above courses have prerequisites, thereby adding to the total semester hour requirements of the program. Students should attempt to take these prerequisites in the freshman or sophomore year and use them to partially fulfill General Education requirements.

Basic Certification Courses

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

450 Psychological/Developmental Concepts of Learning (3) (Y)

Theories of learning, motivation and development which include exploration of individual differences related to intelligence, achievement, social-emotional and physical characteristics. Special emphasis on integrating diverse learners including handicapped students into the regular classroom. Pre: TEP acceptance.

451 Principles of Instruction, Management & Technology (4) (Y)

Technology-assisted inquiry, decision-making processes, strategies of integrated planning, managing elementary and secondary learning environments, and evaluating student learning processes. Overview of national and state standards; materials, content, and metacurricular methodologies. Exploration of instructional principles and theories of classroom management. Use of basic computer applications. Pre: TEP acceptance.

452 Integrated Math/Science/Art Methods (4) (Y)

Exploration of mathematical and scientific concepts through national/local standards using problem solving and inquiry to develop integrated, multi-disciplinary units utilizing art principles, techniques, skills, and concepts. Strategies of teaching math, science and art, including classroom organization, set up and safety. Pre: TEP acceptance.

453 Language Arts, Social Studies and Art Methods (4) (Y)

Exploration of the social studies strands, language, and art as a K-12 integrated and inter-disciplinary approach to thematic planning to enhance the study of culture while reinforcing concepts and skills in each discipline. Pre: TEP acceptance.

456 Literacy in the Elementary School (2) (Y)

Overview of sociopsycholinguistic reading process. Instructional methods and materials and assessment approaches for emergent and more proficient literacy in elementary classrooms. Emphasis on meaning-based strategies, literature-based literacy development and reading-writing connections. Pre: TEP acceptance.

457 Literacy in the Secondary School (2) (Y)

Content area literacy, sociocultural theories and strategies to enhance students' text comprehension and study. Writing in the content areas, use of reference material, young adult literature, and non-print media in the teaching of content area concepts within and across content areas in multicultural classrooms. Pre: TEP acceptance.

458 Secondary Instructional Design and Methods (2) (Y)

Advanced curriculum planning and instruction in the secondary school, including instructional goals, objectives, implementation strategies, and assessment of student learning. Identification of content area resources, developments, and issues. Development of multidisciplinary unit and lesson plans. Pre: TEP acceptance.

459 Social Issues in Secondary Education (2) (Y)

Examination of current issues related to the influence of social changes in the middle and secondary school student. Multidisciplinary study of adolescence in relevant contexts of families, peer groups, school, and work settings. Pre: TEP acceptance.

460 Seminar in Teaching I (1) (Y)

Professional development through discussion of educational issues and applications of theories and teaching methods through field experiences in local schools. Offered on CR/NC basis. Pre: TEP acceptance.

461 Foundations: Teaching as a Profession (2) (Y)

Exploration of teaching profession as a reflection of issues and processes embedded in the multicultural school/society relationship with emphasis on the professional, political, economic, legal, and social issues affecting past, present, and future educational practices. Study of contemporary educational profession as microcosm of community at large. Offered on CR/NC basis. Pre: TEP acceptance.

462 Seminar in Psychological/Developmental Issues (1) (Y)

The application of theories of learning, motivation and development to classrooms with emphasis on psychosocial, moral and cognitive issues. Offered on CR/NC basis. Pre: TEP acceptance.

463 Seminar in Instructional Management (1) (Y)

Application of various theories regarding management of student behavior, including Hawaii State Department of Education guidelines for student conduct and teacher responsibility. Strategies for creating safe, productive learning environments. Offered on CR/NC basis. Pre: TEP acceptance.

464 Instructional Media and Technology (2) (Y)

The integration of art, media, and technology to enhance instructional delivery. Advantages, limitations, and uses of multimedia technology and related instructional substrategies in the classroom; application of technology and media in the development of K-12 curriculum, lesson plans, and unit plans. Offered on CR/NC basis. Pre: TEP acceptance.

465 Seminar in Teaching II (1) (Y)

Analysis and discussion of common management and instructional concerns of beginning teachers by student teachers and their supervisors. Individual identification and analysis of teaching problems. Offered on CR/NC basis. Pre: TEP acceptance.

466 Field Experience Practicum (9) (Y)

Supervised student teaching and professional development experiences in public schools. Supervised observation and teaching with an emphasis on advanced lesson and unit planning. Offered on CR/NC basis. Pre: TEP acceptance.

499 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Liberal Studies-Elementary Education

The Liberal Studies-Elementary Education major is one of the approved majors for students interested in applying to the Teacher Education Program. It is designed specifically for students interested in careers as Elementary School teachers and cannot be used by those seeking certification at the secondary level. **Application to the Teacher Education Program is a separate procedure.** Students majoring in the Liberal Studies-Elementary Education major are not guaranteed admission into the Teacher Education Program. Required core courses must be passed with a "C" or better and required distribution courses must attain a minimum 2.0 GPA. **Caution: In addition to these requirements, students must have a minimum cumulative grade point average of 2.75 to apply for admission into the Teacher Education Program.** Students interested in the Liberal Studies-Elementary Education major must make an appointment to meet with the Pre-Education Advisor, Audrey Furukawa, 974-7414.

I. Required Core

A. English

1. 6 upper division credits of composition/writing courses selected from ENG 309, 315, 431, 482
2. 3 credits any literature
3. 3 credits Children's Literature — Eng 345

B. Communication

3 credits any speech class selected from Drama 231; SpCo 151, 231, 352, 459

C. Mathematics/Logic

8 credits of Math Concepts for Educators; Math 107, 108

D. Arts

3 credits selected from Art 101, 270, 280, 370, 375, 380, 381; Mus 160, 163, 170, 175, 176, 180, 419

E. History

3 credits of U.S. History selected from the following:

Hist 281, 282, 360-476

3 credits of Hawaii or Pacific History selected from the following:

Hist 315, 374

F. Social Sciences

PolS 101

G. Natural Sciences

Select 3 courses from at least 3 of the disciplines; one course must have a lab.

Astr 110, 110L, 130, 180

Biol 101, 101L, 150, 150L 153, 153L, 156

Chem 114, 114L, 124, 124L

CS 100

Geol 111, 111L, Geol 200, 200L

Mare 171, 171L, 201

Phys 115

H. Health/Phys. Ed.

HPE 233

II. Required Distribution

A. English

1. Select one of the following:

Ling 102, Anth/Ling 331, Eng/Ling 344, Anth/Eng/Ling 347, Eng 420

B. Mathematics/Logic

Select 3-4 additional credits from the following:

Math 320, Phil 209, Psy 213, Soc 280 and 280L

C. History

Select one of the following:

Hist 151 or Hist 152

D. Social Sciences

1. Select one of the following:

Geog 101, Geog 102, Geog 103 or Geog 105

2. Select one of the following:

Geog 332, Geog 335 or Geog 350

3. Select one of the following:

Psy 322, Soc 240 or Soc 340

4. Select one of the following:

Anth 323, Psy 360, Soc 310 or Soc 352

E. Health/Phys. Ed.

Select one of the following:

HPE 320, Biol 102

III. Minor

Students must select from one of the following minors.

Art, Eng, HawSt, Jpst, Ling, Mus, Phil, SpCo

Anth, Geog, Hist, PolS, Soc

Astr, Biol, Chem, CS, Geol, Mare, Math, Phys

GBus, Econ

IV. Electives

Select courses to bring the total credits to 120 or more

The Professional Certification Program

Admission is based upon previous preparation and background, and on potential for post-baccalaureate study and requires satisfactory completion of a bachelor's degree with a 2.75 GPA, successful completion of the Initial Basic teacher certification program, and qualification for the Initial Basic teaching credential in the State of Hawai'i. Applications are available at the Admissions Office in Student Services. Applications may be submitted for Fall semester (deadline March 1) or Spring semester (deadline October 1). A Professional Certificate Study Plan must be developed in conjunction with a faculty advisor in the Education Department. Faculty advisors are located in the Education Department, Building PB-2.

A student who completes the certification requirements established by the Teacher Education Program is eligible for a Professional Certificate issued by the State of Hawai'i Department of Education.

Transfer of Credits: Post-baccalaureate coursework accepted for the Professional Certificate Program must be approved by the Education faculty. A minimum of 24 semester hours must be completed at the University of Hawai'i at Hilo. All coursework has a time limit of five years.

Summary of Requirement: The candidate must complete a minimum of 37 semester hours with a cumulative GPA of 3.00 or higher to be recommended for Professional Certification.

The Professional Certificate Program involves three major components: core requirements; career strand courses; and career strand option courses. Students are responsible for fulfilling all program requirements in effect for the semester in which they are admitted into the program.

401 Seminar in Critical Issues in Education (3) (AY)

In-depth study of selected educational issues. Identification and analysis of specific concerns facing the teaching profession on local and national levels. Individual investigation and presentation of research.

404 Education of the Exceptional Student (3) (Y)

Survey of definition, prevalence, characteristics, causes, assessment, intervention, current issues relating to individuals who differ in cognitive, sensory, physical, communicative, emotional/behavioral, or social areas. Pre: Acceptance into Professional Certification Program or consent of instructor.

405 Introduction to Gifted and Talented Education (3) (AY)

Basic terminology, theories, and general approaches to identifying gifted, talented and creative students, modifying the standard school curriculum to meet their needs and evaluating the resulting process and product. Pre: Psy 100, Psy 320 or Ed 321 or consent of the instructor.

406 Computers in Education (3) (Y)

The use of computers to support classroom learning; principles of software evaluation and application. Methodology designed to integrate content area objectives with microcomputer use.

409 Communication in the Classroom (3) (IO)

Communication processes as they impact on classroom teaching and learning; identification and analysis of communication patterns. Methodology designed to implement changes in classroom situations.

410 Clinical Supervision for Teachers (3) (Y)

Emphasis on teacher decision making, lesson design, effective teaching, observation/data collection techniques, analysis of teaching, conducting conferences and evaluating teaching performance. Pre: Initial Basic Certificate and minimum of one year teaching experience or consent of the instructor.

412 Seminar in Curriculum and Instruction (3) (IO)

Introduction to curriculum theory and the history of curriculum as a field of study. In-depth study of conceptual work pertaining to the planning of school programs, offering opportunity to apply those concepts to case studies. Examination of curriculum improvement as a decision making process, including the problems of program evaluation. Pre: consent of instructor.

414 Educational Media (3) (Y)

Introduction to theories, application of principles, acquisition of practical skills of educational media relevant to teaching/learning situations, in classroom as well as non-school settings. Includes mainstreaming strategies for assisting mildly handicapped learners. Pre: Ed 310 or consent of instructor.

416 Assessment and Evaluation (3) (S)

Theory and techniques of measurement and evaluation in education, including supervised experience in instrument development and analysis. Pre: Soc 280, or consent of instructor.

419 Children's Literature (3) (AY)

The study of recent materials in children's literature including a wide range of books and authors; methods of integrating children's literature into the reading and language arts curriculum; developing an understanding of the relationship between child development and children's literature; criteria for evaluating children's literature. Pre: consent of instructor.

420 Adolescent Literature (3) (IO)

The study of recent materials in adolescent literature including a wide range of books and authors; methods of integrating adolescent literature into Language Arts and content areas; developing an understanding of the relationship between adolescent development and literature; criteria for evaluating adolescent literature. Pre: consent of instructor.

422 Seminar in Elementary Education (3) (IO)

Research in elementary content areas for development of teaching methods and materials for instruction. Pre: consent of instructor.

423 Seminar in Secondary Education (3) (IO)

Individual research in specialization/content areas for development of advanced teaching methods and materials for instruction. Emphasis on reading and writing in the content areas of secondary school curriculum. Pre: consent of instructor.

426 Advanced Art Education Methods (3) (Y)

The integration of curricula across content areas through the application of two- and three-dimensional art media. Methods of creative curriculum design through laboratory experiences. Pre: Ed/Art 326 or consent of instructor. (Same as Art 426)

431 Teaching Reading/Writing in the Content Areas (3) (S)

Techniques, materials, and strategies for teaching reading and writing. Improving reading skills in intermediate and high schools.

435 Marinefield Experience for Teachers (3) (AY)

Training for pre-service and inservice teachers in marine science field experiences content and strategies. Includes geological, chemical, physical and biological topics. Pre: Mare 171 or Mare 201.

446 Reading/Writing Difficulties: Assessment and Intervention (3) (AY)

Examination and in-depth critical analysis of reading disabilities. Survey of various reading and writing difficulties. A study of the reading/writing process, diagnostic tests, assessment instruments and procedures, and intervention approaches. Pre: consent of instructor.

480 Organization and Administration of Schools (3) (IO)

Principles and practices of school administration in relation to the function of the teacher. Special emphasis placed on Hawai'i's state organization of public education, and its laws and regulations. Pre: consent of instructor.

490 Professional Certificate Portfolio (1)

Preparation and presentation of major projects and outcomes from the Professional Certificate curriculum in the form of a portfolio. A faculty panel will review the portfolio and meet with the graduate student to conduct a culminating oral and written summary evaluation of the portfolio. Pre: successful completion of a) strand; b) core; and c) options courses.

494 Special Topics in Education (3) (AY)

Selected topics in education chosen by the instructor. The course content will vary. Course may be repeated provided a different topic is studied. Pre: consent of the instructor.

608 Fundamentals of Research in Education (3) (Y)

Introduction to the methodology of systematic study of problems in education; principles of research design, data processing, technical writing and evaluation of research proposals and reports. Pre: teaching credential and one year of teaching experience or consent of instructor.

610 Foundations of Education (3) (AY)

Social and intellectual history of education. Historical and contemporary relationships between schools and society. Foundations of the major philosophies of education. Contemporary educational theory and practice as related to major historical, philosophical and social factors in American culture. Pre: teaching credential and one year of teaching experience or consent of instructor.

611 Advanced Educational Psychology (3) (AY)

Research, theory, and method in study of learner behavior and effective instructional strategies. Improving the learning situation, using effective stimuli, improving thinking, directing learning activity trials, and feedback; testing, and rewarding. Pre: teaching credential and one year of teaching experience or consent of instructor.

ENGINEERING

Office: LS2, 974-7383

Professors:

Bill H. Chen, Ph.D.
Judith L. Gersting, Ph.D.
John M. Gersting, Ph.D.
George T. Koide, Ph.D.

The College of Arts and Sciences currently offers courses at the freshman and sophomore levels applicable to degrees in civil, electrical, general, or mechanical engineering. To enter the engineering program, a student must have completed courses in plane geometry, two years of algebra, trigonometry, mechanical drawing, chemistry, physics, and analytic geometry.

General (GE)**253 Scientific Computer Programming (3) (AY)**

Introductory computer programming for physical science applications. FORTRAN Programming language. Pre: Math 205-205L, or consent of instructor. (Same as CS 210)

299 Directed Studies (1-3) (IO)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

Civil (CE)**211 Surveying I (2 lec., 2-hr. lab) (3) (IO)**

Basic principles of plane surveying including reference planes and surfaces, use of instruments for distance and angular measurements, traverse adjustment, heights, measurement theory, computer applications, topographic surveying. Pre: Trigonometry and computer programming in FORTRAN or BASIC or consent of instructor.

270 Applied Mechanics I (3) (IO)

Equilibrium of particles, rigid bodies, frames and machines; vectors, centroids, friction, and moments of inertia. Pre: Phys 170 and Math 206.

271 Applied Mechanics II (3) (IO)

Dynamics of particles and rigid bodies: force-acceleration; impulse-momentum; work-energy. Pre: CE 270 and Math 231.

299 Directed Studies (1-3) (IO)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

Electrical (EE)**150 Software Design and Implementation I (3) (S)**

First course in software design and implementation for computer science majors. Emphasis on analysis, design, coding, testing, and debugging of software solutions to problems. Concepts covered include simple and structured data types, control structures, iterative processes, simple sort/search and list processing in a high level structured language. Significant laboratory work required. (Same as CS 150)

199 Directed Studies (1-3) (IO)

Permission of instructor and statement of planned reading or research required.

211 Basic Circuit Analysis (3 lec., 1 3-hr. lab) (4) (IO)

Linear circuits, time-domain analysis, transient and steady-state responses, phasors, impedance and admittance; network of system functions, frequency response and filtering, resonance. Pre: Math 206. (Same as CS 280)

213 Basic Lab Measurements & Techniques (3 lec., 1 3-hr. lab) (4) (IO)

Basic electronic measurements. Characteristics of electronic components including resistors, inductors, capacitors, diodes, and transistors, and elementary circuit application. Pre: EE 211. (Same as CS 281)

299 Directed Studies (1-3) (IO)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

ENGLISH (Eng)

Office: EKH 214, 974-7479

Professors:

April Komenaka, Ph.D.
David R. Miller, Ph.D.
Kenith L. Simmons, Ph.D.

Associate Professors:

Sherryl S. Mleynek, Ph.D.
Miyoko Sugano, M.A.

Assistant Professors:

Melissa D. Scott, Ph.D.
Jennifer Wheat, Ph.D.

Instructors:

Karla Hayashi, M.A.
Robert Bailey, M.A.

The English program is designed to help students develop intellectually and personally through their interaction with important ideas well expressed. The department offers courses in literature and language, with primary emphasis on British and American literature, composition, linguistics, literary theory, and world cultures. The English major is designed to give students a thorough grounding in the literary tradition in English as well as the tools for addressing the multifaceted questions that literary study raises. Literature courses not only address great works written in English; they address the nature and context of literary study itself. Courses in language and composition strengthen students' awareness of the complexity and power of language and increase students' ability to think critically and express themselves precisely.

The English major provides sound preparation for many careers, from elementary school teaching through college teaching, from advertising to editing to government service, the legal profession, and business management.

In order to enroll in English 100, English 100T, or ESL 100, students must perform at an appropriate level in the UH Hilo/UH Manoa Writing Placement Examination.

Major: 33 semester hours, in addition to Eng 251-252

Required:

1. Language: Ling 102 (formerly Ling/Eng 203), Ling 121 or Ling 347, Eng 320, 321, 324, 420, or 425; or the 202-level course of a language other than English.

2. Advanced Writing: Eng 315 or 309.
3. Literature: 18 semester hours of 300/400-level courses of which at least one course must be chosen from each of the following:
 - a. Shakespeare: English 461 or 462.
 - b. Medieval/Renaissance Literature: Eng 435, 437, 459, 460.
 - c. English Literature 1660B1900: Eng 438, 440, 442, 445.
 - d. American Literature: Eng 351, 352, 419, 447.
 - e. Modern/Contemporary Literature: Eng 355, 371, 464.
4. 9 additional credits of 300/400-level English courses.
5. Students must earn a "C" or better in all courses counted toward the English major.

Recommended courses for English majors: English 315, Advanced Composition; two college years of a language other than English.

Minor: 15 semester hours, in addition to Eng 251-252

1. Language: Ling 102 (formerly Ling/Eng 203), 121; Eng 320, 321, 324, 347, 420, or 425; or the 202-level course of a language other than English.
2. Advanced Writing: Eng 315 or 309.
3. Literature: 9 semester hours: one course from each of three of the following:
 - a. Shakespeare: English 461 or 462.
 - b. Medieval/Renaissance Literature: Eng 435, 437, 459, 460.
 - c. English Literature 1660B1900: Eng 438, 440, 442, 445.
 - d. American Literature: Eng 351, 352, 447.
 - e. Modern/Contemporary Literature: Eng 355, 371

100 Expository Writing (3) (S)

Instruction and practice in writing clear, effective university-level prose. Attention to all stages of the process-generating ideas, drafting, revising, and editing. Entry requirements: Eng 100 recommendation on Writing Placement Examination.

100T Expository Writing with Tutorial Assistance (3) (S)

Instruction and practice in writing clear, effective university-level prose. Attention to all stages of the process generating ideas, drafting, revising, and editing. Tutors are provided and attending tutoring sessions is required. Equivalent to Eng 100 or ESL 100. Entry requirements: Eng 100T recommendation on Writing Placement Examination.

ESL 100 Expository Writing for Non-Native Speakers (3) (S)

Instruction and practice in writing clear, effective university-level prose. Fulfills the Expository Writing (Eng 100) requirement for non-native speakers of English only. Entry requirements: ESL 100 recommendation on Writing Placement Examination.

199 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: Eng 100/ESL 100 or consent of instructor.

200 Types of Literature (3) (S)

An introduction to literary genre: prose, poetry, drama. Pre: Eng 100/ESL 100 or consent of instructor.

215 Intermediate Composition (3) (S)

Writing of essays from logical and rhetorical principles, especially modes of definition, assertion, and proof. Emphasis on academic writing skills. Pre: Eng 100/ESL 100.

251, 252 Major Works of British Literature (3-3) Yr. (Y)

251: Middle Age to 1800; 252: 1800 to the present. Pre: Eng 100/ESL 100 or consent of instructor.

253, 254 World Literature (3-3) Yr. (Y/AY)

Major works in translation. 253: Classical to 17th century; 254: 17th century to the present. Pre: Eng 100/ESL 100 or consent of instructor.

299 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing; Eng 100/ESL 100 or consent of instructor.

301 The Bible as Literature (3) (IO)

Selected books of the Old and the New Testaments, examined with respect to their composition, form, and literary merit. Pre: Eng 100/ESL 100 or consent of instructor. (Same as Rels 301)

309 Written Communication for the Professions (3) (S)

Principles of informative, analytical, and persuasive writing for students preparing for careers in business, science, and technology. Business letters, brief reports, case analysis, a research report, and other useful forms. Wordprocessing skills are needed to complete most assignments. Pre: Eng/ESL 100 and word processing skills.

314 Journalism (3) (IO)

Principles of journalism with emphasis on newspaper reporting. Methods of news gathering, writing and editing, research, interviewing, rewriting news releases, and covering campus events and beats. Pre: Eng 100/ESL 100 or consent of instructor.

315 Advanced Composition (3) (S)

Writing of essays with an emphasis on rhetorical and stylistic methods, structure, and voice. Pre: Eng 100/ESL 100 or consent of instructor.

318 Playwriting (3) (IO)

Basic course in writing for the stage. Development of theme, action, and characterization for the one-act play form. Pre: consent of instructor. (Same as Dram 318)

320 History of the English Language (3) (AY)

The major developments in the English language from the 5th century to the present day. Pre: Eng/ESL 100, Ling 102 or Ling 121, or consent of instructor. (Same as Ling 320)

324 Modern English Grammar and Usage (3) (IO)

The fundamentals of English morphology and syntax, conventions of written and spoken English, and sociolinguistic aspects of major English registers and dialects. Pre: Eng/ESL 100, Ling 102 or Ling 121, or consent of instructor. (Same as Ling 324)

325 Pidgins and Creoles (3) (Y)

A study of the world's pidgins and creoles with special reference to the Pacific region; the origin and nature of pidgins and creoles; the relationship between Hawai'i Creole English to other creoles in the world; the link between the development of a creole and language acquisition. (Same as Ling 325, Anth 325)

344 Children and Language (3) (AY)

Strategies of language acquisition used by children; emphasis on investigative skills and methods, including some field work. Pre: Eng 100/ESL 100 or consent of instructor. Recommended prerequisite: Anth/Ling 121 or Eng/Ling 203. (Same as Ling 344, Ed 344)

345 Children and Literature (3) (AY)

Literature in English for and by children, with special emphasis on the ways in which literature promotes social, emotional, and intellectual development. Pre: Eng 100/ESL 100 or consent of instructor. (Same as Ed 345)

347 Pidgins and Creoles (3) (Y)

A study of the world's pidgins and creoles with special reference to the Pacific region; the origin and nature of pidgins and creoles; the relationship between Hawai'i Creole English to other creoles in the world. The link between the development of a creole and language acquisition. (Same as Anth 347, Ling 347; recommended Ling 102 or 121)

351, 352 Survey of American Literature (3B3) Yr. (Y)

351: American literature to the Civil War; 352: from the Civil War to the present. Pre: Eng 100/ESL 100 or consent of instructor.

355 Women in Modern Literature and Film (3) (AY)

Literature and film by and about women from 1900 to the present. Pre: Eng 100/ESL 100 or consent of instructor.

360 Poetry Writing and Criticism (3) (AY)

Study of the fundamentals of poetry, such as sound patterns, meter, simile, metaphor, irony, and symbolism, with instruction and guidance in writing poems and interpretation of selected poems by established poets. May be repeated once for credit, with consent of the instructor. Pre: Eng 100/ESL 100 or consent of instructor.

365 Japanese Literature in English (3) (AY)

Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JpSt 365)

366 Utopia in Literature (3) (IO)

A study of the "Utopian" theme in literature, from Plato's *Republic* to the modern science fiction novel. Pre: Eng 100/ESL or con of instructor.

370 The Art of the Film (3) (AY)

Development of the silent and sound film, concentrating on representative works by American, European, and Asian directors. Pre: Eng 100/ESL 100 and one college-level literature course or consent of the instructor.

371 Topics in Contemporary Literature (3) (AY)

The development of contemporary fiction, poetry and drama concentrating upon representative works from 1945 to the present. This course may be taken twice provided that different topics are studied. The letter suffix indicates the topic. Pre: Eng 100/ESL 100 and one college-level literature course or consent of the instructor.

394 Special Topics in English (1-3) (Y)

Advanced topics chosen by the instructor. The course content will vary. Course may be repeated for credit, provided that a different topic is studied. Pre: Eng 100/ESL 100 or consent of instructor.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing; Eng 100/ESL 100 or consent of instructor.

419 Topics in American Literature (3) (AY)

Advanced topics in American literature. The letter suffix indicates course content, which will vary. The course may be taken up to two times for credit as long as a different topic is studied. Pre: Eng 100/ESL 100 and at least one 300-level writing or literature course, or consent of instructor.

430 Pacific Islands Literature (3) (AY)

A study of a representative range of contemporary poems, short stories, novels, and plays written in English by Pacific Islanders from Polynesia, Micronesia, and Melanesia.

431 Creative Writing: Fiction (3) (AY)

Study and writing seminar in short fiction. Pre: junior standing; Eng 100/ESL 100 or consent of instructor.

435 Chaucer (3) (AY)

The works of Chaucer. Pre: Eng 100/ESL 100 or consent of instructor.

437 Renaissance Poetry and Prose (3) (AY)

Poetry and prose of the period 1500-1660, exclusive of Milton. Pre: Eng 100/ESL 100 or consent of instructor.

438 Milton (3) (AY)

Selected poetry and prose, including *Areopagitica*, *Paradise Lost*, *Paradise Regained* and *Samson Agonistes*. Pre: Eng 100/ESL 100 or consent of instructor.

440 Restoration and Eighteenth Century Literature (3) (AY)

Poetry and prose of the Restoration and the 18th century. Pre: Eng 100/ESL 100 or consent of instructor.

442 Romantic Literature (3) (AY)

Poetry and prose from 1780 to 1832. Pre: Eng 100/ESL 100 or consent of instructor.

445 Victorian Literature (3) (AY)

Poetry and prose from 1832 to 1900. Pre: Eng 100/ESL 100 or consent of instructor.

459 Medieval Literature (3) (AY)

Early English poetry and prose, with an emphasis on Anglo-Saxon literature, medieval and dramatic poetry, and the works of Sir Thomas Malory. Pre: Eng 100/ESL 100 or consent of instructor.

460 Renaissance Drama (3) (AY)

The contemporaries and successors of Shakespeare, with particular emphasis on the plays of Jonson, Beaumont & Fletcher, Webster, and Tourneur. Pre: Eng 100/ESL 100 or consent of instructor.

461 Shakespeare (3) (AY)

Selected histories, comedies, and tragedies not studied in Eng 462. Pre: Eng 100/ESL 100 or consent of instructor.

462 Shakespeare (3) (AY)

Selected histories, comedies and tragedies not studied in Eng 461. Pre: Eng 100/ESL 100 or consent of instructor.

464 Modern Literature (3) (AY)

British and American literature from 1900 to WWII with emphasis on the development of Literary Modernism. Pre: Successful completion of Eng 100 or equivalent and at least one college-level literature course or consent of the instructor.

470 Film and Literature (3) (IO)

Study of selected literary works and their film adaptation with the intention of developing an understanding of the nature of cinematic language. Recommended prerequisite: Eng 370 and/or at least one college-level literature course. Pre: Eng 100/ESL 100 and one college-level literature course or consent of the instructor.

475 Theoretical and Practical Criticism (3) (AY)

Analysis of historical and contemporary literary theories followed by study and practical criticism of several literary works. Pre: Eng 100 and one upper-division literature course or consent of instructor.

481 Theory and Practice in Tutoring Writing (3) (IO)

Theories of writing, teaching, and tutoring with practical application in tutoring composition students. Required for English 100T tutors. Pre: Eng 100 or 100T or ESL 100, and junior standing or consent of instructor.

482 Teaching Composition (3) (AY)

Overview of current theory and research informing contemporary English composition instruction at elementary, secondary, and college levels with methods for application to teaching of writing at any level or within any discipline. Pre: Eng 100/ESL 100 or consent of instructor. (Same as Ed 482)

494 Special Topics in English (1-3) (Y)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: senior standing; Eng 100/ESL 100 or consent of instructor.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing; Eng 100/ESL 100 or consent of instructor.

FRENCH (Fr)CSee Languages**GEOGRAPHY AND ENVIRONMENTAL STUDIES (Geog)**

Office: EKH 214A, 974-7460

Professors:

James O. Juvik, Ph.D.

James L. Kelly, Ph.D.

Sonia P. Tinglin-Juvik, Ph.D.

Assistant Professor:

Thomas R. Paradise, Ph.D.

The Geography program at the College of Arts and Science is designed to expose the undergraduate student to the wide range of topics in contemporary geography. The required courses represent a cross section of physical geography, human geography, and geographic techniques; the elective courses allow a student to mold the major toward his or her areas of general interest.

The Island of Hawai'i offers a setting of diverse natural and cultural environments ideal for geographic studies. Field excursions are an integral and enriching component of the student's geographic education at UH Hilo. Computer-based spatial analysis, cartography, and image processing contribute to a balanced and modern curriculum.

Major: 39 semester hours**Required:**

Geog 101, 103, 201, 321, 380 or equivalent statistics course, and 498 or six additional upper division credits in geography courses; Eng 309; and:

Block I: (6 semester hours) Geog 300, 301, 309, 319, or 320.

Block II: (3 semester hours) Geog 312, 328, 330 or 421.

Block III: (3 semester hours) Geog 375, 385, 470 or 480.

Block IV: (3 semester hours) Geog 102, 105, 332, or 350.

Note: Where appropriate, and with the approval of the Geography chairperson, one Special Topics (Geog 494) course may be substituted for a listed course under blocks I, II, III, or IV. Also, with approval of the Geography chairperson up to three of the six Geography electives (in lieu of Geog 498 above) may be drawn from appropriate courses in related disciplines.

Minor: 18 semester hours**Required:**

Geog 101, 102 or 103, and four additional courses in Geography at the upper division level with a least one course from each of the following three blocks:

Block I: Geog 300, 309, 319, or 320.

Block II: Geog 312, 321, 328, or 330.

Block III: Geog 375, 385, or 470.

Certificate in Environmental Studies

Environmental Studies Certificate is a multi-disciplinary program that emphasizes a theoretical and applied approach to environmental and natural resource assessment, classification, problem or phenominal mitigation, policy, and related issues. This certificate program includes courses in the social and natural sciences. Two certificates are available in this program. One certificate emphasizes the physical characteristics of the environment (Physical Studies Certificate) and another certificate emphasizes the social aspects of the environment (Social Studies Certificate).

Physical Studies Certificate in Environmental Studies: Geog 101 (required entry course); Biol 101, 150 or 153; Chem 114 or 124; Geol 111 or equivalent; Mare 201 or Mare/Biol 360; Soil 304, 401, Ag/Geog 312 or Geog 326; Econ 380 or PolS 345; Geog 494 (required exit course).

Social Studies Certificate in Environmental Studies: Geog 101 (recommended entry course); PolS 230; PolS 435; PolS 402 or Econ 330; PolS 403; PolS 370; PolS 380; Econ 350; Geog 494 (required exit course).

Certificate in Planning

The Geography Program also offers a Certificate in Planning. This is an optional program designed to complement the major in Geography. Non-Geography majors may pursue the planning certificate with the approval of the department chair. Students accepted into the certificate program are required to obtain at least a C grade in Geography 340, 440, two upper division electives (six credits) approved by the planning advisor, and a one-semester internship (Geog 496) with a private or public firm or agency. (The internship will normally be completed in the student's senior year.) Up to two courses in the certificate program may also be counted as Geography major electives. For further details on the planning certificate program, contact any member of the geography faculty.

Introductory**101 Geography and the Natural Environment (3) (S)**

Survey of the earth's physical environment, including distribution and associations between energy, climate, vegetation, and landforms. Human interrelationships with the physical landscape.

101L Geography and the Natural Environment Lab (2 Hrs) (1)* (IO)

Analysis of the natural environment through the use of maps, airphotos, field and laboratory observation and experimentation. Emphasis on Hawai'i and upon human modification of the environment. Pre: credit or concurrent enrollment in Geog 101.

102 Geography of World Culture Regions (3) (S)

Geographic survey of the world's major cultural regions. Processes of spatial integration and differentiation of economic, geo-political, and cultural landscapes. Natural resource distribution and the contrasts and linkages between the developed and under-developed world.

103 Geography and Contemporary Society (3) (S)

Examines aspects of culture such as population, agriculture, industry, and religion. Focus on the relationships between people and their environment and resulting regional contrasts.

105 Geography of the United States (3) (Y)

Major features of the United States. Emphasis on what gives character or distinctiveness to various places.

120 Weather and Climate of Hawai'i (3) (IO)

For non-science majors and prospective science teachers. Basic meteorology, sun-earth-ocean-atmosphere interrelationships, weather types, seasonal changes, trade winds, clouds, rainfall, with examples drawn from the local weather and climate. (Same as Phys 120)

201 Interpretation of Geographic Data (3) (Y)

Introduction to methods of analysis and display of a variety of geographical data. Map interpretation and design, including introduction to elementary computer mapping techniques.

Physical Geography**300 Climatology (3) (AY)**

Elements and controls of climate. Dynamic processes of atmospheric circulation: the distribution patterns of solar radiation, temperature, precipitation, and evaporation. Energy and water balance concepts, climate classification. Pre: Geog 101 or consent of instructor.

301 Agricultural and Applied Climatology (3)* (AY)

Effects of the atmospheric environment on plants, animals, and humans. Human modification of weather and climate. Meteorological instruments, and techniques of data collection and analysis. Pre: Geog 101; Bio 101 or 150 or 153; or consent of instructor.

309 Biogeography (3)* (AY)

Basic evolutionary and ecological principles underlying the dynamics of plant and animal populations. Mechanisms of isolation, speciation, dispersal, migration, and competition as they affect past and present world distribution patterns. Island biogeography. Pre: Geog 101; Biol 101 or 150 or 153; or consent of instructor. (Same as Biol 309)

319 Natural Hazards and Disasters (3) (AY)

Survey of origins, processes, distributions, and effects of hazardous physical forces: hurricanes, tornadoes, drought, floods, earthquakes, volcanism, landslides, erosion, and beach degradation. Hazard perception and adjustment by humans also considered. Pre: Geog 101 or consent of instructor.

320 Geomorphology (3)* (AY)

Processes of landform development at large and small scales. Theoretical and applied aspects, including human environment considerations. Pre: Geog 101 or Geol 111 or equivalent.

326 Natural Resources (3)* (AY)

Philosophy and history of the conservation movement in the United States. Ecological considerations in the management of renewable and nonrenewable resources. Current conservation issues in Hawai'i. Pre: Geog 101 or consent of instructor.

Human Geography

312 Agricultural Geography (3) (AY)

Different types of agriculture, their location, and the cultural and environmental constraints operating to produce the resultant patterns. World food and hunger. Pre: one introductory Geography course. (Same as Ag 312)

321 Geography of Economic Activity (3) (Y)

Factors influencing the distribution of economic activities at different spatial scales: world, national, local. Consideration of general theories of decision making for urban and industrial locations.

328 Cultural Geography (3) (Y)

Concepts and methods of cultural geography. Adaptations and adjustments to environment in past and present societies. Pre: one introductory Geography course.

330 Population Geography (3) (IO)

Recent geographic approaches to population problems and processes. Explores problems of population distribution, population growth, migration, and food supply.

421 Urban Geography (3) (IO)

Cities: their origins, functions, and physical structure. Problems of urban growth, decay, and adaptation; evolution of urban institutions. Pre: Geog 103 or consent of instructor.

Regional Geography

332 Geography of the Hawaiian Islands (3) (Y)

Introduction to the physical and human geography of Hawai'i. Development of island ecosystems. Polynesian pre-history, post-contact resource exploitation and environmental transformation. History of land tenure and management. Spatial aspects of agriculture, urbanization, and tourism. Pre: Geog 101 or 103, or consent of instructor.

*Field trips are sometimes conducted outside of class hours.

335 Geography of Oceania (3) (AY)

Physical and human geography of the Pacific Islands region including Australia and New Zealand (excluding Hawai'i). Topics include: regional marine and terrestrial resources; human settlement and landscape transformation; population and political geography; economic development, and resource management and environmental issues.

350 Geography of Asia (3) (AY)

Introduction to the lands and peoples of Asia. Emphasis on the physical and cultural features which characterize the geography of Asia.

435 Senior Seminar in Pacific Studies (3) (AY)

A reading and research seminar under the supervision of the Pacific Islands Studies faculty aimed at demonstrating competence in research and writing on issues related to Pacific Islands environments, culture, society and economy. Pre: consent of instructor for students near completion of Pacific Islands Studies Certificate coursework. (Same as Anth 435)

Analytical Techniques

375 Cartography (3) (AY)

Principles and processes used in the design, compilation, production, and reproduction of thematic maps. Emphasis on maps as communication media. Pre: Geog 201 or consent of instructor.

380 Quantitative Methods in Geography (3) (AY)

Application of statistical and mathematical models in a geographic context. The use of multivariate techniques in assessing spatial relationships. Pre: Geog 201 or consent of instructor.

385 Field Methods in Geography (3) (AY)

Geographic field methods for regional analysis of physical and cultural landscapes. Instrumentation, collection, and evaluation of environmental, cultural, and economic data; planning and land management applications. Pre: Geog 201 or consent of instructor.

399 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

470 Remote Sensing and Air Photo Interpretation (3) (AY)

Analysis of film and digital images of the Earth's surface collected from cameras and sensors aboard aircraft and satellites. Applications to resource planning, forestry, hydrology and geology. Pre: Geog 201 or consent of instructor.

480 Geographic Information Systems and Computer Mapping (3) (AY)

Examination of sophisticated computer methods to display and manipulate maps. Focuses on how these systems work, what they do, and for what they are used. Emphasis on applications and hands-on experience. Pre: Geog 201 or consent of instructor.

494 Special Topics in Geography (1-3) (IO)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied.

498 Senior Thesis (6) (S)

Individual research in problems of special interest. Pre: invitation by geography faculty.

Planning

340 Principles of Land Use Planning (3) (Y)

Land use planning and relationship of geographic concepts to urban, regional, and environmental planning. Emphasis on examples from Hawai'i.

440 Advanced Environmental Planning (3) (Y)

Advanced topics in planning with emphasis on local land use plans, policies and ordinances as well as methodology for collection and analysis of data for environmental impact assessment. Pre: Geog 340.

496 Internship (3) (S)

Juniors and seniors majoring in geography may undertake in-service training in government or private agencies. Pre: junior standing or consent of instructor.

*Field trips are sometimes conducted outside of class hours.

GEOLOGY (Geol)

Office: LS-2, 974-7383

Associate Professors:

James L. Anderson, Ph.D.

Carl E. Johnson, Ph.D.

Assistant Professor:

Jené D. Michaud, Ph.D.

The bachelor of science degree in geology prepares students for opportunities in the areas of mineral resources, environmental science, and science technology, and provides a strong background for students interested in pursuing graduate study. By completing additional course work in education, students with a geology major may receive teaching certification.

To earn a bachelor of science degree in geology, a student must acquire 120 semester hours, complete the earlier-listed general requirements for any baccalaureate degree, and satisfy the following requirements.

I. General Education Basic Requirements (23 semester hours)

A. Communication Skills (9 semester hours)

1. English composition (Eng 100); must be fulfilled before completing 24 credits. All entering freshmen and continuing or transfer students without English 100 must take the UH Hilo/UH Manoa Writing Placement Examination.
2. SpCo 151
3. Eng 309

B. Quantitative and Logical Reasoning (8 semester hours)

Math 205-205L, 206-206L

C. World Cultures (6 semester hours)

Same as listed earlier for the bachelor of arts degree requirements.

II. General Education Area Requirements (44 - 46 semester hours)

A. Humanities (12-14 semester hours)

Same as listed earlier for the bachelor of arts degree requirements.

B. Social Sciences (12 semester hours)

Same as listed earlier for the bachelor of arts degree requirements.

C. Natural Sciences (20 semester hours)

Chem 124/124L, 125/125L

Phys 170/170L, 171/171L

III. Geology Major Requirements (41 semester hours)

- A. Geol 111/111L, 112/112L, 210, 211, 220, 330, 340, 342, 370, 495A, 495B
- B. Nine semester hours credit in Geol courses at the 300 and/or 400 level.

IV. General Electives (10-12 semester hours)

Any course offered by the UH Hilo College of Arts and Sciences not used to fulfill the above requirements.

V. Additional Requirements

- A. A grade of C (2.0) or better in any course requirement listed in III above.

B. Hawaiian-Asian Pacific requirement as listed earlier for the bachelor of arts degree requirement.

C. 30 semester hours at the 300 and/or 400 level.

Recommended courses for students planning graduate study include one year of foreign language, and a summer field course in geology.

Minor in Geology: 21 semester hours

Required:

Geol 111-111L, 112-112L, and a minimum of 6 semester hours in geology at the upper division level by departmental advisement.

Minor in Earth and Space Science: 24 semester hours

Required:

Geol 111-111L, 112-112L, 205; Astr 110L, 180, 181; Geol/Astr 384; Geol/Astr 386.

111 Physical Geology (3)* (S)

The study of the earth, with emphasis placed on the materials, surface features, structures, and various erosional and depositional processes.

111L Physical Geology Laboratory (1 2-hr. lab) (1) (S)

The basic techniques of topographic map/air photo interpretation and rock and mineral identification as applied to principles of physical geology. Pre: Geol 111, which may be taken concurrently. (Optional)

112 Historical Geology (3)* (Y)

The origin and evolution of the earth, its materials, structure, and life. The interpretation of earth history through techniques and recent developments in geochemistry, geophysics, planetary astronomy, and paleontology. Pre: Geol 111 or consent of instructor.

112L Historical Geology Laboratory (1 2-hr. lab) (1) (Y)

Includes topics on fossils and fossilization, measurement of geologic time, stratigraphy, biostratigraphy, geotectonics, paleoecology, sedimentology, and the interpretation of geological maps. Pre: Geol 112, which may be taken concurrently, and Geol 111L. (Optional)

194 Special Topics in Geology (1-3)* (IO)

Topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied.

200 Environmental Geology (3)* (Y)

The concepts and natural processes of man's interaction with his geologic environment. Geologic hazards and the degradation of our natural resources. The role of geology in sound policy making in urban and national planning for the optimum utilization of natural resources.

200L Environmental Geology Laboratory (1 2-hr. Lab) (1) (Y)

Develops skills in map interpretation, satellite and remote sensing, and the application of basic geological principles towards the understanding of man's relationship with the environment. Laboratory experiences in hazards mapping and assessment, environmental pollution, global change, and the management of our geological resources.

205 Geology of the Hawaiian Islands (3)* (S)

A survey of the geological phenomena particular to the Hawaiian Islands, including volcanism, rock and mineral occurrences, land-form development, and water resources.

210 Mineralogy (3 lec., 1 3-hr. lab) (4) (AY)

A systematic study of the more common minerals, involving their classification, origin, occurrence, chemical characteristics and uses. Laboratory work stresses characterization and identification of minerals according to their chemical and physical properties. Pre: Geol 111 and Chem 125, which may be taken concurrently, or consent of instructor.

211 Optical Mineralogy (2 lec., 1 3-hr. lab) (3) (AY)

Optical crystallography and the optical properties of common rock-forming minerals. Lab work stresses the use of the petrographic microscope in mineral identification, with an introduction to elementary x-ray crystallography. Pre: Geol 210.

220 Petrology (2 lec., 1 3-hr. lab) (3) (AY)

An introduction to the study of rocks, including their origin, occurrence, composition and classification. Laboratory work involves the identification of rocks in hand specimen and thin section by means of composition and texture. Pre: Geol 211 or consent of instructor.

299 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

311 Economic Geology (3) (IO)

The chief metallic and nonmetallic minerals, rocks and fuels that are of economic value to man; their origin, mode of occurrence, distribution exploitation, and utilization. Pre: Geol 220 or consent of instructor.

315 Principles of Geochemistry (3) (AY)

The geochemical processes that control the distribution of the chemical elements within the earth and in its atmosphere and hydrosphere; chemical thermodynamics, phase equilibria, and crystal chemistry as applied toward the study of natural systems. Pre: Geol 210 or consent of instructor.

330 Structural Geology (2 lec, 1 3-hr. lab) (3)* (AY)

Effects and mechanics of deformation of the earth's crust, involving the description, classification, and origin of geologic structures. Aspects of geotectonics are considered. Pre: Geol 112 and prerequisites listed for Math 205, or consent of instructor.

340 Stratigraphy and Sedimentology (2 lec, 1 3-hr. lab) (3) (AY)

Principles of stratigraphic classification, lithofacies and biofacies, faunal zonation, correlation, sedimentation, and paleogeography as illustrated by the stratigraphy of classical geologic regions: a) Pre-Cambrian, b) Paleozoic, c) Mesozoic, d) Cenozoic. Pre: Geol 112 or consent of instructor.

342 Geomorphology (3)* (AY)

Processes of landform development at large and small scales. Theoretical and applied aspects, including human environment considerations. Pre: Geog 101 or Geol 111 or equivalent. (Same as Geog 320)

350 Paleontology (2 lec, 1 3-hr. lab) (3) (IO)

Morphology and biologic relationships of fossil groups important in the correlation and ecologic interpretation of sedimentary rocks. Pre: Geol 112 or consent of instructor.

360 Principles of Hydrology (3) * (AY)

Introduction to principles of hydrology. Topics include surface hydrology, hydro-meteorology, ground water occurrence and movement, and water quality. Introduction to measurement techniques, quantitative descriptions of hydrologic phenomenon, and practical applications. Pre: Geol 111, Geol 111L, and Math 104-104L, or consent of instructor.

362 Hydrogeology (3) (AY)

Quantitative focus on aquifer properties, principles of groundwater flow, quantity and quality of groundwater resources, water chemistry, groundwater contamination and the role of groundwater in geologic processes. Pre: Geol 111, 111L, Chem 114 or 124, and Math 115 or 205-205L.

370 Field Methods (1 lec, 2 3-hr. lab) (3) (AY)

Familiarization with field instrumentation and techniques. The study of methods used to collect, graphically represent, and interpret geological field data. Pre: Geol 330 or consent of instructor.

380 Principles of Geophysics (3) (AY)

Introduction to the nature of the earth's interior as determined by seismic, gravitational, magnetic and heat flow properties; methods of geophysical investigation, data reduction and interpretation. Pre: Geol 112, Phys 171-171L, or consent of instructor.

384 Comparative Planetology (3) (IO)

Study of the geology and geophysics of Earth-like planets and satellites in the solar system, with emphasis on understanding terrestrial geology in a broader, astronomical context. Topics covered: major processes determining structure and surface features of planets and techniques for remote sensing. Pre: Geol 112, Astr 180. (Same as Astr 384).

386 Comparative Planetary Atmospheres (3) (IO)

Study of the structure, dynamics, and evolution of the atmospheres of solar system planets and satellites, with emphasis on understanding the climatology and meteorology of the Earth in a broader, astronomical context. Discussions will include the stability of the Earth's climate and techniques of remote sensing. Pre: Geol 112, Astr 180. (Same as Astr 386).

394 Special Topics in Geology (1-3)* (IO)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: junior standing and consent of instructor.

399 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

431 Geology of North America (3) (IO)

Survey of the structure, stratigraphy, and tectonic evolution of the North American continent from the Precambrian to Recent. Pre: Geol 330 or consent of instructor.

445 Geological Data Analysis Using GIS (3) (AY)

Fundamentals of representing, manipulating and displaying spatial data using GIS (Geographical Information System) computer software. Emphasis on obtaining new information through analysis of geologic data. Pre: Geol 370 or equivalent.

470 Volcanology (3)* (AY)

In depth general study of volcanic processes, products, and phenomena, including the classification of volcanic eruptions, and specialized topics such as gas geochemistry, geophysical monitoring techniques, volcanism and ore mineralization, and geothermal power. Pre: Geol 220.

471 Volcano Monitoring (3) * (AY)

Survey of deformation, seismological, geochemical, and field mapping methods of monitoring active volcanoes, and their use in forecasting eruptions. Emphasis on field applications. Pre: Previous college credit in geology, mathematics, and other physical science, or consent of the instructor.

472A Geochemical Monitoring of Active Volcanoes (1) * (AY)

Study and analysis of volcanic volatiles, including topics on chemical equilibria of fluids and gases, transport processes, analytical methods, and related natural hazards. Field and laboratory work emphasizes sampling procedures and analytical methods. Pre: Two years of chemistry, to include physical and/or analytical chemistry, or consent of instructor.

472B Seismology of Volcanoes (1) * (AY)

Investigation of seismotectonic processes of active volcanoes, including sources of earthquakes, volcanic tremor, seismic tomography, and seismic methods for volcanic monitoring. Field deployment of portable seismographs and operation of telemetered, digital seismic networks. Pre: College credit in geophysics and calculus, or consent of instructor.

472C Deformation Monitoring of Active Volcanoes (1) * (AY)

Theory, field skills, instrumentation, deployment strategies, and data reduction methods used to monitor ground deformation on active volcanoes. Emphasis on practical application. Pre: Structural geology and trigonometry/pre-calculus, or consent of instructor.

495A-495B Seminar (1-1) Yr. (S)

Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as Astr 495A-495B, Chem 495A-495B, Phys 495A-495B and Math 495A-495B)

*Field trips are sometimes conducted outside of class hours.

HAWAIIAN STUDIES PROGRAM

Office: EKH 214, 974-7479

Professor:

William H. Wilson, Ph.D.

Associate Professors:

T. Haunani Bernardino, M.A.

Kauanoë Kamañā, M.A.

Kalena P. Silva, Ph.D.

Assistant Professor:

Larry L. Kimura, B.A.

Hawaiian Studies is a field in which UH Hilo excels. Special strengths of the program include Hawaiian music, dance, literature, linguistics and traditional culture. The program is best known for its Hawaiian language focus and its use of Hawaiian as the language of instruction for upper division courses. Indeed, the UH Hilo Hawaiian Studies program is the most developed university program in a Native American language in the United States and the only degree program anywhere taught primarily through a Native American language.

Current government efforts to give substance to the official status of Hawaiian language have created a high demand for UH Hilo Hawaiian Studies graduates. Students typically begin participation in the program to fulfill General Education requirements. Taking more courses can lead to a one year culture certificate, a two year minor, a three year language certificate or a four year major. The major is divided into two tracks: Option I taught entirely through the Hawaiian Studies Department, and Option II taught on an interdisciplinary basis.

Major: 43 semester hours with a grade of “C” or better in every course

Option I (Continuing the Culture)**Required:**

Haw 303-304, 403-404

Haws 205, 305, 497

Haws 111 or 211 or 213

Electives:

12 semester hours selected from either (A) or (B), plus 6 semester hours taken from any 300- or 400-level course with a Haws or Haw alpha:

(A) Language Emphasis: Haws 361, Haws 462, Haw 453, 454, 455.

(B) Performing Arts Emphasis: Haws 361, 462, 471, 472, 473, 474.

Option II (Monitoring the Culture)**Required:**

Haw 303-304; Haws 111, Haws 205, 305, 497.

Electives:

21 semester hours selected from at least two of the following, 18 of which must be in courses numbered 300 and above, plus 5 semester hours taken from any 300- or 400-level course with a Haws or Haw alpha:

(A) Premodern Society: Anth 385, 386

(B) Modern Society: Hist 374; Anth 387; Econ 330; Pols 402, 403

(C) Natural Setting: Biol 156; Geog 120, 332, Geol 205; Haws 211, 213, 361

Minor: 23 semester hours with a grade of “C” or better in every course

Required:

Haw 201-202 or Haw 207, and one of the following courses: Haws 111, 211 or 213.

Electives:

12 semester hours in courses numbered at the 300- or 400-level which are listed as requirements or electives in Option I and Option II.

Certificate In Hawaiian Language: 24 semester hours with a grade of “C” or better in every course

Required:

Haw 303-304 (8 semester hours) - requires background in elementary and intermediate Hawaiian.

Electives:

16 semester hours taken from: Haw 403-404, 453, 454, 455, 494, 499; Haws 305, 361, 462, 471, 472, 473, 474, 494, 497, 499; (Note: All Haw- and Haws- related elective courses are conducted in Hawaiian); Ling 121, 203, 351.

Certificate in Basic Hawaiian Culture: 26 semester hours with a grade of "C" or better in every course

Required:

Haw 101-102 (8 semester hours) or Haw 107.

Core Electives:

9 semester hours taken from: Haws 111, 176, 211, 213.

Related Electives:

9 semester hours taken from: Anth 386, 387, 390; Biol 156; Econ 330; Geog 120, 332; Geol 205; Haw 100, 201-202/207, 299; Hist 374; Haws 205; or a fourth course from the core elective list.

CONDITIONS: No more than two courses may be counted in the fulfillment of all three of the following: (1) Hawaiian Studies minor, (2) the Certificate in Basic Hawaiian Culture and (3) the Certificate in Hawaiian Language. No more than three courses may be counted in the fulfillment of two of the above.

Hawaiian Language (Haw)

100 Hawaiian Language in Action (2) (S)

A beginning immersion experience in Hawaiian focusing on the spoken use of the language: (A) usage referring to locations and relationships, (E) usage referring to processes and actors, (I) others. (May be repeated for credit if subletters are different.) Meets three times weekly. No prerequisites.

101-102 Elementary Hawaiian (4-4) Yr. (Y)

Development of listening, speaking, reading and writing skills. Taught within the context of the contemporary culture of the Hawaiian people. Language laboratory required.

107 Accelerated Elementary Hawaiian (8) (S)

Contents of 101-102 covered in one semester. Meets 2 hours daily, Monday through Friday. Language laboratory required. Pre: consent of instructor.

194 Special Introductory Topics in Hawaiian (1-4)

Topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Pre: consent of instructor.

199 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required.

201-202 Intermediate Hawaiian (4-4) Yr. (Y)

Continuation of 102. Conducted in Hawaiian. Language laboratory required. Pre: Haw 102 or equivalent.

207 Accelerated Intermediate Hawaiian (8) (Y)

Contents of 201-202 covered in one semester. Meets 2 hours daily, Monday through Friday. Language laboratory required. Pre: 102 or 107.

294 Special Topics in Hawaiian (1-4)

Topics chosen by instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Pre: Hawaiian course at the introductory level and consent of instructor.

299 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

303-304 Third-Level Hawaiian (4-4) Yr. (Y)

Continuation of 202. Advanced structures, expressions and patterns. Conducted in Hawaiian. Language laboratory required. Pre: C or better in Haw 202 or equivalent or permission from the instructor.

399 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: junior standing.

403-404 Fourth-Level Hawaiian (4-4) Yr. (Y)

Continuation of 304. Advanced structures, expressions, and patterns. Conducted in Hawaiian. Language laboratory required. Pre: C or better in 304 or permission from the instructor.

453 Hawaiian Phonetics and Phonology (3) (AY)

Sound system of the Hawaiian language. Stylistic and regional variation. Interaction of the Hawaiian sound system with the sound systems of other languages, especially that of English. Conducted in Hawaiian. Pre: Haw 202 or equivalent, which, with permission, may be taken concurrently, or equivalent. Eng/Ling 203, Ling 211, Ling 311 recommended. (Same as Ling 453)

454 Hawaiian Morphology and Syntax (3) (AY)

Grammatical system of the Hawaiian language. Conducted in Hawaiian. Pre: Haw 202 or equivalent, which, with permission, may be taken concurrently, or equivalent; Eng/Ling 203 recommended. (Same as Ling 454)

455 Hawaiian: A Polynesian Language (3) (AY)

The similarities and differences among Polynesian languages and the reconstruction of their common ancestor language. The development of Hawaiian from that common ancestor. Conducted in Hawaiian. Pre: Haw 303, which may be taken concurrently, and Haw 453. Haw 454, Eng/Ling 203, Ling 371 recommended. (Same as Ling 455)

494 Special Advanced Topics in Hawaiian (3)

Topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. (A) Translation of English materials into Hawaiian; (E) Other. Conducted in Hawaiian. Pre: Hawaiian language course at the intermediate level and consent of instructor.

499 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: senior standing.

631 History of Hawaiian Language and Literature (3) (AY)

Hawaiian language and literature since contact with Europeans. Styles of language and types of literature. Relationships between Hawaiian and other languages, especially Hawai'i Creole English. Pre: Haws 452 or 453 (or concurrent enrollment); Ling 325, 331 and 421 recommended.

654 Advanced Hawaiian Grammar (3) (AY)

Advanced Hawaiian aspects of Hawaiian grammar. Pre: Haw 453 and 454, Ling 321 (or concurrent enrollment).

Hawaiian Studies (Haws)

111 The Hawaiian 'Ohana (3) (S)

The culture of the Hawaiian people as expressed in the home and family. The position of the family as the basis of the larger Hawaiian society and culture. Both ancient and modern aspects covered; extensive use of Hawaiian terminology.

175 Introduction to the Music of Polynesia (3) (AY)

A general survey of the traditional and acculturated music of eight major Polynesian island groups: Tonga, Samoa, New Zealand, Cook Islands, Society Islands, Marquesas Islands, Easter Island and Hawai'i. Music is viewed as both an organization of sound and as a product of culture and people. (Same as Mus 175)

176 The History and Development of Hawaiian Music (3) (AY)

A general survey of the interrelationships of traditional and acculturated Hawaiian music. Vocal music genres to be discussed include: chant; Christian hymn singing; secular choral singing; male and female falsetto singing; *Chalangalang*; *Hapa Haole*; and contemporary. Instrumental music genres include: pre-European instrumental styles; slack key guitar; 'ukulele; and steel guitar. (Same as Mus 176)

194 Special Topics in Hawaiian Studies (1-3)

Topics chosen by instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: consent of instructor.

205 Hawaiian Music in Action (2) (S)

Learning Hawaiian songs as a means of strengthening knowledge of language, poetry and culture. A) *mele 'aina*, E) *mele pili kanaka*, I) other. (May be repeated for credit if subletters are different.) Conducted in Hawaiian. Meets three times weekly. Pre: Haw 101 or 107.

211 Hawaiian Ethnobotany (3) (S)

Hawaiian herbs and plants: their identification, their place in the heritage of the Hawaiian people, their medicinal properties, and other practical uses; extensive use of Hawaiian terminology.

213 Hawaiian Ethnozoology (3) (S)

Hawaiian fishes, birds, and other creatures: their identification, their place in the heritage of the Hawaiian people, methods of capture, their practical uses; extensive use of Hawaiian terminology.

294 Special Topics in Hawaiian Studies (1-3)

Topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: Hawaiian Studies course at the introductory level and consent of instructor.

299 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

305 Hana No'eau (1) (S)

Traditional Hawaiian arts taught in Hawaiian. (A) *lau hala*, (E) 'upena/*koko* (types of nets), (I) *hulu manu* (feather work), (O) other. (May be repeated for credit if subletters are different.) Pre: Haw 202 or equivalent, which, with permission, may be taken concurrently, or equivalent.

361 Pana Hawai'i (3) (Y)

Traditions and literature of *pana* (named sites of cultural importance): Emphasis on islands of (A) Hawai'i, (E) Maui, (I) Moloka'i and Lana'i, (O) O'ahu, (U) Kaua'i and Ni'ihau. Conducted in Hawaiian. (May be repeated for credit if subletters are different.) Pre: Haws 111; Haw 202 or equivalent, which, with permission, may be taken concurrently, or equivalent.

399 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: junior standing.

462 Haku Mele (3) (AY)

Hawaiian poetry as literature. Survey and analysis of traditional and modern forms, methods of composition, poetic language, imagery, and *kaona* (hidden meaning). Interpreting and composing poetry in Hawaiian. Pre: Haw 303, which may be taken concurrently, or consent of the instructor; Haws 361 recommended. Conducted in Hawaiian.

471 Mele 'Auana (3) (AY)

Hawaiian musical traditions initiated since 1778 (e.g., falsetto, slack key, *himeni*, etc.). Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: Haw 202 or equivalent, which, with permission, may be taken concurrently; Haws 361, Haws 462.

472 Hula 'Auana (3) (AY)

Hawaiian dance forms initiated since 1778. Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: Haw 202 or equivalent, which, with permission, may be taken concurrently; Haws 361, Haws 462, Haws 471 recommended.

473 Oli/Mele Kahiko (3) (AY)

Hawaiian musical forms initiated prior to 1778 (e.g. chanted lamentations, chanted greetings, dance chants, etc.). Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: Haw 202 or equivalent, which, with permission, may be taken concurrently; Haws 361, Haws 462, Haws 471 recommended.

474 Hula Kahiko (3) (AY)

Hawaiian dance forms initiated prior to 1778. Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: Haw 304 or equivalent, which, with permission, may be taken concurrently; Haws 361, Haws 462, Haws 471, Haws 473 recommended.

494 Special Advanced Topics in Hawaiian Studies (3)

Topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. (1) *Mo'oka'ao*; (E) Post contact folk history; (I) Other. Pre: Hawaiian Studies or Hawaiian language course at the intermediate level and consent of instructor.

497 Hawaiian Studies Seminar (3) (Y)

Readings, research and field work on the traditional and contemporary Hawaiian community. Conducted in Hawaiian. Pre: Haw 303 and senior standing, or consent of instructor.

499 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: senior standing.

661 Advanced Hawaiian Music (3) (AY)

Examination of indigenous and foreign forms found in acculturated Hawaiian music. Pre: Haws 471 and 473 (or concurrent enrollment).

663 Traditional Hawaiian Literature (3) (AY)

Focuses on indigenous oral and written literature forms and their relationship to folk tales. Pre: Haws 452, 453 (or concurrent enrollment).

665 Ethnological and Historical Narratives (3) (AY)

Description written in Hawaiian regarding traditional Hawaiian culture and history. Cultural topics range from religion and court life to farming and fishing. Pre: Haws 453, 663 (or concurrent enrollment). Recommended: Anth 386, 387; Haws 212, 213.

HEALTH AND PHYSICAL EDUCATION (HPE)

Office: Athletic Complex, 974-7460

Associate Professor:

Ramon A. Goya, M.A.

Instructor:

Robin Takahashi, B.A.

101 Physical Fitness (1) (S)

Conditioning exercises and activities to develop and maintain physical efficiency. Motor fitness tests administered to measure status and progress.

102 Aerobics (1) (S)

Fundamental principles of aerobic exercise done to music. Physical and mental development training for total body maintenance and efficiency. Development of individual's own aerobic fitness program.

103 Swimming: Beginning (1) (Y)

Adjusting to water, immersing in water, floating, sculling, correct arm stroke, leg kick, breathing techniques and their coordination.

104 Swimming: Intermediate (1) (IO)

Perfecting and integrating basic strokes with added emphasis on swimming for distance and speed.

107 Tennis: Beginning (1) (S)

Rules, etiquette, grip, forehand and backhand strokes, serving, volleying, singles and doubles play.

108 Tennis: Advanced (1) (S)

Improving the serve, forehand and backhand strokes, volleying, chop strokes, competitive strategy, problems in rules.

110 Golf: Beginning (1) (S)

Rules, etiquette, and skill (grip, stance, stroke) in using the irons, woods, and putter. Driving range and play on golf course require additional fees.

111 Golf: Advanced (1) (S)

Improving drive, fairway wood shots, long iron shots, control shots, trouble shots, putting, course management, competitive strategy, problems in rules. Actual play on golf course requires additional fees.

112 Archery (1) (Y)

Skills, knowledge, attitudes, and appreciation, including field experiences. Equipment provided.

115 Bowling (1) (S)

Rules, etiquette, arm swing, approach, execution, scoring, spare pick-ups. Class participation at bowling alley requires additional fees.

117 Mountain Biking (1) (S)

Basic knowledge and skills of mountain biking. Emphasis will be placed on the safe operation and maintenance of the bike for recreational purposes. Uses such as commuting and racing will be discussed.

120 Badminton (1) (S)

Rules, etiquette, grip, forehand and backhand strokes, serving, smash, drive, netplay, offensive and defensive strategy in singles and doubles play.

121 Advanced Badminton (1) (Y)

Competitive singles and doubles strategy, rules, etiquette. Perfecting fundamental strokes: smash, clear, drops, net, and drive shots.

126 Rhythmic Activities (1) (IO)

Social dances including ballroom and mixers, emphasizing techniques, composition, design, dynamics, theme, rhythm, and form.

134 Volleyball: Beginning (1) (Y)

Rules, fundamental skills of passing, setting, hitting, blocking, digging, and team strategies.

135 Volleyball: Advanced (1) (Y)

Perfecting fundamental skills, advanced hitting, play sets, and strategies.

136 Team Sports (1) (Y)

Skills, knowledge, attitudes and appreciation. Combination of soccer and softball.

137 Team Sports (1) (Y)

Skills, knowledge, attitudes and appreciation. Combination of flag football and speedball.

138 Basketball: Beginning (1) (Y)

Rules, etiquette, skills in footwork, body balance, passing, shooting, dribbling, rebounding, individual and team strategies, and plays.

139 Basketball Advanced (1) (Y)

Improving fundamental skills, advanced strategies, ball control and shooting skills, offensive and defensive tactics, officiating.

152 Weight Training (1) (S)

Fundamental techniques of weight training which includes safety and precautions, diet and nutrition, basic weight training principles and individualized exercise programs for total physical fitness.

161 Aikido (1) (Y)

Ki training (mind-body unity), principles of etiquette, basic exercises. Six basic throws and other selected kata, and breathing exercises.

201 School Health Problems (2) (Y)

Responsibilities of the elementary school teacher in recognizing and meeting pupil's needs, teacher's role in health instruction, health services, healthful school living, school health policies.

203 Introduction to Physical Education (2) (Y)

Nature, scope, aim and objectives of physical education; basic principles of human movement; physical education as an academic discipline and its relationship to fields such as recreation, health education, and athletics.

204 Introduction to Coaching Athletics (2) (S)

Nature, responsibilities, personal and professional requirements of a coach. Scientific principles applicable to coaching methodology and athletic competition.

232 Safety Procedures and Accident prevention (2) (Y)

Understanding the fundamental principles and techniques of safety and accident prevention in school, home, work, motor vehicle, and recreational situations.

233 Physical Education: Elementary (3) (S)

Content and methods for physical education in elementary school. Selection, planning, teaching, evaluation of movement skills, and activities.

234 Care and Prevention of Athletic Injuries (3) (Y)

Fundamentals in athletic training and sports medicine designed to introduce principles and concepts in prevention and treatment of sports-related injuries. HPE 232 recommended as prerequisite. Additional fees required.

263 Intramural Athletics (2) (S)

The organization, administration, and supervision of intramural sports programs in schools with emphasis on leadership, program content, facilities, scheduling, rules and regulations, promotion, financing, and evaluation.

294 Special Topics in Health and Physical Education (1-3) (S)

Topics chosen by instructors. The course content will vary. It may be repeated for credit, provided that a different topic is studied.

300 Psycho-social Aspects of Sport (3) (Y)

The functions and dysfunctions of the sporting system will be examined from sociological perspectives. In addition, specific psychological constructs are presented in order to examine the relationship between environmental sources of influence and the individual's capacity for self-management in the sporting world.

320 Drug Awareness (3) (S)

For students interested in the prevention and treatment of victims of legal and illegal use, misuses, and abuse of drugs and related substances. Examines the problems and consequences of people who have to deal with this dilemma.

HISTORY (Hist)

Office: EKH 214A, 974B7460

Professors:

Gary D. Best, Ph.D.

Thomas E. Smuck, Ph.D.

Sandra Wagner-Wright, Ph.D.

Associate Professor:

David C. Purcell, Ph.D.

The study of history opens windows to the world, and teaches students discipline, analysis, research and writing skills and critical thinking while they develop an appreciation for their own and other peoples' cultures across time. Majors in other disciplines also find history courses attractive and useful, since the department offers both traditional and topical courses that complement other fields of study. Business, philosophy, geography, political science, natural science, and other majors gain increased understanding of their respective fields as they learn the historical processes that affected them. Many students majoring in other fields take sufficient history courses to qualify for the minor in history.

The University of Hawai'i at Hilo also has an active chapter of Phi Alpha Theta, the international honor society in History.

Major: 36 semester hours of which 30 semester hours must be in upper-division (300-400 level) history courses. Students may select either Plan A (thesis program) or Plan B (non-thesis program).

Thesis Program

1. Complete one of the following two-semester introductory surveys: History 151-152 or 281-282;
2. Complete 12 semester hours of upper-division courses concentrated in one of the following fields: United States, Asia and the Pacific, or Europe;
3. Complete an additional 12 semester hours of upper-division courses of which at least 3 semester hours must be taken from each of the other two fields; and
4. Complete History 490-491.

Non-Thesis Program

1. Complete one of the following two-semester introductory surveys: History 151-152 or 281-282;
2. Complete 15 semester hours of upper-division courses concentrated in one of the following fields: United States, Asia and the Pacific, or Europe; and
3. Complete an additional 15 semester hours of upper-division courses of which at least 6 semester hours must be taken from each of the other two fields.

Minor: 15 semester hours of history courses at the 300-400 level

Prerequisites for Upper-Division History Courses: Completion of one of the introductory surveys (History 151-152 or 281-282); or the consent of the instructor is required for registration in any upper-division history course.

Introductory Surveys

151,152 World Civilization (3/3) Yr. (Y/Y)

Development of the civilizations of the world from their prehistoric origins to the present.

Hist 151: to the 17th century; Hist 152: from the 17th century to the present. Equivalent to Hist 151-152 at Manoa. Satisfies Manoa's World Civilization graduation requirement. Prerequisite for upper-division courses in European and U.S. history.

281, 282 American History (3B3) Yr. (AY/AY)

An interpretive survey of United States history. 281: 1500 to 1877; 282: 1877 period to the present.

Upper-Division Courses in Asian and Pacific History

310, 311 History of Japan (3/3) Yr. (AY/AY)

310: Japanese culture from earliest times to the mid-19th century. 311: Japanese history from the mid-19th century to the end of World War II. Pre: Consent of instructor. (Same as JpSt 310; 311)

312, 313 History of China (3-3) Yr. (AY/AY)

312: Chinese culture from earliest times through the Ming Dynasty. 313: Chinese history from the Ch'ing period through the 1940's with emphasis on China's response to the West, reform movements in the 19th century, the revolution of 1911, and the establishment of the People's Republic of China. Pre: Consent of instructor.

315 History of Oceania (3) (AY)

European and American impact from exploration and exploitation to trusteeships and independence in Melanesia, Micronesia, and Polynesia.

374 History of Hawai'i (3) (Y)

Political and social history of Hawai'i with emphasis on Hawai'i's foreign relations from 1778 to the contemporary period.

391 Women: A Global Perspective (3) (AY)

Modern & contemporary issues affecting women from African, Asian, Latin American, Islamic & Pacific cultures. History, cross-cultural contact & the impact of modern political, social & economic systems will be emphasized in conjunction with theoretical perspectives. (Same as Rels 391)

417 History of Japan: 1945 to the Present (3) (AY)

Japanese society, political culture, foreign relations, and economic development since 1945. Pre: Consent of instructor. (Same as JpSt 417)

418 The Chinese People's Republic (3) (AY)

The history of China since 1945. Civil War, 1945-1949; establishing the new order, 1949-1955; the Great Leap Forward; the Termidorian Reaction, 1960-1965; the Great Proletarian Cultural Revolution; the People's Republic and the International Community; the Four Modernizations; after Mao: the search for a new order.

476 United States in the Pacific (3) (AY)

Emergence of the United States as a Pacific power; cultural, economic and political expansion of the United States into the Pacific, including Hawai'i; relations with other Pacific nations, especially those of East Asia.

Upper-Division Courses in European History

319 European Women's History (3) (AY)

Study of European women from pre-history to the 20th century with emphasis on women's social and cultural roles in western history. Modern feminist theories will also be studied. Pre: Hist 151, 152 or consent of instructor.

320 Germany Since 1815 (3) (AY)

Development of Germany since 1815 in political, social, and economic fields. Special emphasis on the two World Wars and the rise of totalitarianism. Pre: Hist 151, 152, or consent of instructor.

325, 326 Modern War (3-3) Yr. (AY/AY)

An examination of the causes, course, results, and influence of modern wars on societies. Organization, composition, strategy, tactics, logistics, social, and technological implications. 325: Louis XIV to World War I; 326: since World War I. Pre: consent of instructor.

330 Modern France Since 1789 (3) (AY)

Development of modern France since 1789 in political, economic, and social areas. Special emphasis on the changed position of France in its European setting. Pre: Hist 151, 152, or consent of instructor.

343 Medieval Europe: 200 A.D.-1500 (3) (AY)

Social intellectual and political history of western Europe from the fall of the Roman Empire to 1500 with emphasis on England and France (Same as Rels 343)

344 Early Modern Europe: 1500-1789 (3) (AY)

Social intellectual and political history of western Europe from 1500-1789 with emphasis on the Iberian peninsula, Italy, England and France. (Same as Rels 344)

345, 346 Ideas in Modern Europe (3-3) (AY/AY)

Intellectual and cultural development of Europe since 1789. Ideas in the arts, philosophy, science, literature, and politics as they have affected Europe. 345:1789-1900; 346: since 1900.

349, 350 History of Russia (3-3) Yr. (AY/AY)

Development of Russian thought and institutions and territorial expansion. 349: to 1800; 350: since 1800. Pre: Hist 151, 152, or consent of instructor.

439 Europe in the Nineteenth Century (3) (IO)

Major political, social, economic, and intellectual trends in the evolution of Europe from Napoleon to the end of World War I. Pre: Hist 151, 152, or consent of instructor.

440 Europe Since Versailles (3) (IO)

Problems of contemporary Europe and their historical background. Pre: Hist 151, 152, or consent of instructor.

Upper-Division Courses in American History

360 American Women's History (3) (AY)

Study of American women from the 17th to the 20th centuries. Special emphasis will be on women's social and cultural roles. Current theories of feminization and current women's issues will also be studied. Pre: Hist 151, 152 or consent of instructor.

371, 372 History of U.S. Foreign Relations (3/3) (AY/AY)

Diplomatic, cultural, and economic relations of the United States with other countries; expansion of U.S.; politics and foreign policy; major problems for American foreign policy makers. 371: from colonial times to 1900; 372: from 1900 to the present.

379 History of American Business (3) (AY)

The American free enterprise system from its European origins; the role of business and finance in American expansion; relations of business and finance with labor and government. (Same as Mgt 379).

460 Birth of a Nation: U.S. 1620-1840 (3) (AY)

Establishment of the United States from a political, social and intellectual perspective with special emphasis on America's place in the British Empire, the causes of the Revolution, the development of republican government and Jacksonian democracy.

463 Crisis of Union: U.S. 1841-1877 (3) (AY)

Major political, social and demographic events of the period including the westward movement, the Mexican War, immigration, nativism, abolition, sectionalism, industrialization, Civil War and Reconstruction.

464 The Transformation of the American Nation: 1877-1920 (3) (AY)

The legacy of Reconstruction, industrialism, dissent and reform, emergence of the U.S. as a world power, World War I and its aftermath.

465 U.S. History, 1920-1941 (3) (AY)

The history of the United States during the period between the world wars: the end of the progressive era, the triumph of Harding and normalcy, keeping cool with Coolidge, Hoover and the great depression, FDR and the New Deal, and the road to World War II.

466 U.S. History, 1941 to Present (3) (AY)

The history of the United States during the period since 1941 and the coming of World War II. Truman and the Fair Deal, McCarthyism, the Cold War, Korea, the Ike years. Kennedy and the New Frontier, Viet Nam, LBJ, Nixon and Watergate, and the U.S. today.

476 United States in the Pacific (3) (AY)

Emergence of the United States as a Pacific power; cultural, economic and political expansion of the United States into the Pacific, including Hawai'i; relations with other Pacific nations, especially those of East Asia.

Special Courses in History

490, 491 Senior Thesis and Tutorial (3/3) (S)

Supervised guidance in the composition of a major research paper. Work will focus on research methods, historiography, and writing techniques of the historian's craft. Recommended for majors intending to enter graduate programs.

492 Internship (1-6) (S)

The gathering and processing of materials on local history. Students may also work with local historical societies. May be repeated up to a total of 12 credits. Pre: consent of instructor.

494 Special Topics in History (1-3) (S)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. b) American, c) European, d) Asian. Pre: senior standing and consent of instructor.

499 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

HONORS (Honor)

Office: CH 1, 974-7300

Honors Advisory and Policy Committee:

Jerry M. Calton, Ph.D.
Christopher A. Reichl, Ph.D.
Brian N. Tissot, Ph.D.
Jennifer Wheat, Ph.D.

The UH Hilo Honors Program is designed to motivate, challenge, and enrich outstanding students, in order to promote their intellectual curiosity, nurture their intellectual independence, and deepen their sense of scholarship. Honors students are outstanding in their desire for learning, demonstrated ability, and intellectual enthusiasm. To be admitted to the University Honors Program is a privilege reserved for those students whose intellectual capacities and motivation enable them to take advantage of the program's unique learning opportunities, including specially designed interdisciplinary Honors General Education courses, enriched Honors sections of regularly scheduled courses, and small group or one-on-one tutorials with outstanding research and teaching faculty of the University. Neither a separate degree program nor a major, the program is a pathway designed to allow exceptional students to fulfill some General Education and academic major requirements in a unique community of scholars.

Students are admitted to the program on the basis of an application to the Honors Advisory and Policy Committee. Students who are admitted to the program will complete eighteen credits of the following requirements, which can also be used to fulfill General Education and major requirements:

Two Honors courses (6 credits)

Additional course work (minimum of 9 credits) selected from among Honors courses, Honors designated sections of regularly scheduled courses (e.g. English 100H, reserved for Honors students and other students who demonstrate high quality writing skills), Honors tutorials, Honors summer reading examinations, Honors directed studies.

Senior Honors Thesis (3 credits) (It is anticipated that the thesis will be written with a faculty member in the student's major department and that credits earned in this way will count toward the student's major.)

100 Honors Colloquium (3) (IO)

An intensive course in reading, writing, and thinking about major issues with emphasis placed upon interdisciplinary approaches. Students introduced to a representative group of faculty. The colloquium uses a seminar format and will encourage the development of a community of scholars. Pre: Honors student or consent of instructor.

200 Foundations of Western Civilization (3) (AY)

An interdisciplinary introduction to the Greco/Roman/Judaic/Christian foundations of the Western world. A study of the art, drama, literature, history, philosophy and scientific contributions of the ancient world. Pre: honors student or consent of instructor.

201 Development of Western Civilization (3) (AY)

An interdisciplinary study of the development of Western culture and values in the Medieval Age, Renaissance, Reformation and Scientific Revolution. Considers the art, drama, literature, history, social and political institutions, philosophy and science of this period. Pre: Honors student or consent of instructor.

202 Foundations of Asian Civilization (3) (AY)

An interdisciplinary study of the roots of Asian thought and culture. A study of the religious and philosophical traditions of India and China forms a basis for understanding the art, literature, drama, music, history, and social and political institutions in India, China, Japan, Korea, and South East Asia until 1200-1300. Pre: Honors student or consent of instructor.

203 Development of Asian Civilization (3) (AY)

An interdisciplinary seminar on the development of contemporary Asian thought and culture. Examination of patterns in social structure, ethnic relations, religion and cosmology, with comparative views of Asian societies from 1200-1300 AD through the ethnographic present.

292 Course-Linked Tutorial (1)

Tutorial taken in connection with a 200-level course. Statement of planned reading or research required.

293 Summer Reading Exam (1-2)

An examination based upon a prearranged reading list. Taken during the first six weeks of the fall semester of the sophomore year.

299 Directed Study Tutorial (1-3)

Statement of planned reading or research required. Pre: Sophomore standing and consent of instructor.

392 Course-Linked Tutorial (1)

Tutorial taken in connection with a 300-level course. Statement of planned reading or research required.

393 Summer Reading Exam (1-2)

An examination based upon a prearranged reading list. Taken during the first six weeks of the fall semester of the junior year.

399 Directed Study Tutorial (1-3)

Statement of planned reading or research required. Pre: Junior standing and consent of instructor.

490 Honors Senior Thesis (3)

Composition of a senior thesis under the direction of a thesis committee.

492 Course-Linked Tutorial (1)

Tutorial taken in connection with a 400-level course. Statement of planned reading or research required.

493 Summer Reading Exam (1-2)

An examination based upon a prearranged reading list. Taken during the first six weeks of the fall semester of the senior year.

499 Directed Study Tutorial (1-3)

Statement of planned reading or research required. Pre: Senior standing and consent of instructor.

INTERDISCIPLINARY STUDIES (IS)**199 Directed Studies (1-3)**

Permission of instructor and statement of planned reading or research required.

210 Bibliography and Use of Library Material (3) (IO)

Various types of services and resources available at the UH Hilo Edwin H. Mookini Library. Evaluation of the basic reference and bibliographic sources essential for independent library research.

251 Japan Summer Study Tour (2) (IO)**299 Directed Studies (1-3)**

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

351 Methodology of Foreign Language Teaching (3) (IO)

Foreign language teaching and learning from the perspective of theory and practice. The application of modern linguistics to specific problems confronting the teacher. (Same as Ling 351)

393 Foreign Field Experience (Arr) (3-15)

Academic coursework, research, or internship in foreign locations which may transfer into specific disciplines after its completion. D = Denmark, E = England, F = France, H = Hong Kong, J = Japan, K = Korea, P = People's Republic of China, R = Republic of China (Taiwan), T = Thailand. Foreign field experiences are not limited to the countries listed. May be repeated for credit.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

JAPANESE STUDIES (Jpst)

Office: EKH 214, 974-7479

Professors:

Don Aanavi, Ph.D.
A. Didrick Castberg, Ph.D.
Hsueh-Li Cheng, Ph.D.
Lawrence Rogers, Ph.D.

Associate Professors:

Masafumi Honda, Ed.D.
David C. Purcell, Ph.D.
Christopher A. Reichl, Ph.D.

Assistant Professor:

Douglas Mikkelsen, Ph.D.

Instructor:

Hirokuni Masuda, Ph.D.

The Japanese Studies major is a program of significant multidisciplinary study in the area of Japanese civilization centering on a core of language study. It should be of special interest to students contemplating graduate study on Japan, students considering careers in tourism, journalism, government service, international business, and anyone simply interested in Japanese society and culture.

Major: 40 semester hours

1. Language core: (For non-native speakers of Japanese only)
Jpns 101-102, 201-202, 301-302 (22 semester hours).

2. Non-language core: (For native speakers of Japanese only)
Ling 102, 121, 321, 425, Jpst 425, any two upper division writing intensive courses (21 semester hours).
3. A total of 18 semester hours in Japan-related courses from at least two of the following three blocks:

Block I: Jpst 310, 311, 356, 358, 390, 417, 494

Block II: Jpst 315, 375, 381, 406A, 430, 450, 494

Block III: Jpst 340, 394, 401*, 402*, 425, 451, 452, 481, 482

*Non-native speakers only.

Minor: 22 semester hours

Jpns 101B102; 201B202

Jpns 356 and Jpst 310 or 311 or 417

Interested students must see the Japanese Studies advisor during the first two years of language study.

101-102 Elementary Japanese (4-4) Yr. (S)

Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Not more than four credits will be granted for the completion of both Jpns 101 and Jpns 121 at Hawai'i Community College.) (Same as Jpns 101-102)

201-202 Intermediate Japanese (4-4) Yr. (S)

Continuation of Jpns 102. More difficult colloquial structures and *kanji*. Pre: Jpns 102 or equivalent. (Same as Jpns 201-202)

299 Directed Studies (1-3) (S)

Permission of the instructor and statement of planned reading or research required. Pre: sophomore standing.

301-302 Third-Year Japanese (3-3) Yr. (S)

Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, *kanji*. Pre: Jpns 202 or equivalent. (Same as Jpns 301-302)

310-311 History of Japan (3-3) Yr. (AY)

Japanese culture from earliest times to the mid-19th century; and from the mid-19th century to the end of World War II. Pre: Hist 241, 242, or consent of instructor. (Same as Hist 310- 311)

315 East Asian Religions (3) (AY)

The development of religion in China, Korea, and Japan. the inter-relationships of Buddhism, Confucianism, Taoism, and Folk Religion in all three countries. the adaptation of Shinto to these religions and the post war religion in Japan. Pre: Rels 300 or consent of instructor. (Same as Rels 315)

340 Japanese Composition (3) (AY)

Writing modern compositions following designated patterns, *kanji*, and themes. Pre: Jpns 202 or equivalent. (Same as Jpns 340)

356 Japan (3) (Y)

Culture origins and development with emphasis on contemporary Japanese culture. (Same as Anth 356)

358 Japanese Immigrants (3) (Y)

Sociocultural adaptations of Japanese immigrant populations overseas with foci on Hawai'i and Brazil. The role of Japanese government and immigration companies, the factors of generation, kinship, ethnicity and contemporary emigrants. (Same as Anth 358)

365 Japanese Literature in Translation (3) (AY)

Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as Jpns 365, Eng 365)

375 Japanese Music (3) (AY)

Traditional, contemporary, and Western-influenced music of Japan based upon historical survey and study of major genres of Japanese music. No previous musical knowledge is required. Pre: junior standing or consent of instructor. (Same as Mus 375)

381 Art of Japan (3) (AY)

The history of art in Japan with emphasis on Buddhist art, the relationships between Chinese and Japanese arts. No prerequisites necessary for juniors and seniors - others admitted by special permission. (Same as Art 381)

390 Japanese Culture and Civilization (3) (IO)

A multidisciplinary study of Japanese civilization including anthropology, art, history, linguistics, literature, music, philosophy, political science and religion.

399 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: junior standing.

401-402 Fourth-Year Japanese (3-3) Yr. (AY)

Study of modern spoken and written Japanese involving advanced structures, expressions, patterns and more complicated *kanji*. Pre: Jpns 302 or equivalent. (Same as Jpns 401-402)

417 History of Japan: 1945 to the Present (3) (AY)

Japanese society, political culture, foreign relations, and economic development since 1945. Pre: Hist 242 or consent of instructor. (Same as Hist 417)

425 Translation Workshop (3) (AY)

Theory and practice of translation of Japanese materials into English. Emphasis on literary translation, but non-literary texts may also be considered. Pre: Jpns 302 or consent of instructor. May be repeated once for credit. (Same as Jpns 425)

430 Philosophy of Zen (3) (AY)

Chief philosophical teachings of Zen, its methods and cultural influences. Comparative study of Zen and Western thought. Pre: previous work in philosophy or religious studies, or consent of instructor. Phil 302 is recommended. (Same as Phil 430, Rels 430)

450 Mahayana Buddhist Philosophy (3) (AY)

Important tenets and major schools of Mahayana Buddhist philosophy in India, China, Japan, Tibet, and Hawai'i. Comparative study of Mahayana and Western philosophy. Pre: previous work in philosophy, religious studies, or consent of instructor. Phil 302 is recommended. (Same as Phil 450, Rels 450)

451-452 Structure of Japanese (3-3) Yr. (AY)

Phonology, morphology, syntax of modern colloquial grammar. Pre: Ling 203 and Jpns 202, or consent of instructor. (Same as Ling 451-452, Jpns 451-452)

481-482 Readings in Modern Japanese Literature (3-3) Yr. (IO)

Reading and discussion in Japanese of selected works of fiction, poetry, and drama. Pre: Jpns 302 or consent of instructor. May be repeated once for credit. (Same as Jpns 481-482)

494 Special Topics in Japanese Studies (3) (IO)

Advanced topics selected by the faculty in Japanese Studies.

499 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: senior standing.

LANGUAGES

Office: EKH 214, 974-7479

Professors:

Lawrence Rogers, Ph.D.
William H. Wilson, Ph.D.

Associate Professors:

T. Haunani Bernardino, M.A.
Masafumi Honda, Ed.D.
Kauanoë Kamanā, M.A.
Glenn P. Silva, Ph.D.

Assistant Professor:

Larry L. Kimura, B.A.

Instructors:

Kamila Dudley, M.A.
Hirokuni Masuda, Ph.D.
Faith Mishina, M.A.

The Language Department offers instruction in Chinese, French, Hawaiian, Japanese and Spanish, and related courses in literature and culture. Each program is comprehensive in approach, developing the functions of speaking, comprehension, reading and writing.

The Language Department does not offer a Languages major. See the Hawaiian Studies and Japanese Studies Programs for related majors.

Chinese (Chn)

101-102 Elementary Chinese (4-4) Yr. (IO)

Development of listening, speaking, reading and writing Mandarin Chinese. Structural points introduced inductively. Laboratory drill.

201-202 Intermediate Chinese (4-4) Yr. (IO)

Second-level training in listening, speaking, reading and writing skills. Pre: Chn 101-102 or consent of the instructor.

French (Fr)

Students who have demonstrated competence in French in high school will not be admitted to Fr 101 and must take a placement test before enrolling in a course in French.

101-102 Elementary French (4-4) Yr. (Y)

Conversation, laboratory drill, grammar, reading, using film strips, slides and tapes.

150 Basic Conversational French (3) (Y)

Basic conversation vocabulary and structure enabling students to express themselves in French. Emphasis will be on pronunciation, grammar and vocabulary skills in the context of everyday situations. Offered only in the Summer session.

201-202 Intermediate French (4-4) Yr. (Y)

Reading, conversation, laboratory drill, composition, using film strips, slides and tapes. Pre: Fr 102 or equivalent.

311-312 Advanced Conversation and Composition (3-3) Yr. (IO)

Major emphasis on strengthening oral and written language skills through reading and discussion of current French-language periodicals, writing informal essays, grammar review, and laboratory drills. Video tapes, movies, and film strips also will be used. Pre: French 202 or equivalent.

394 Special Topics in French Culture (3) (IO)

Advanced topics chosen by instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: Fr 102 or equivalent.

Hawaiian (Haw)

See Hawaiian Studies Program for Hawaiian Language course listings.

Japanese (Jpns)

Students who have demonstrated competence in Japanese in high school will not be admitted to Jpns 101 and must take a placement test before enrolling in a course in Japanese.

101-102 Elementary Japanese (4-4) Yr. (S)

Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Not more than four credits will be granted for the completion of both Jpns 101 and Jpns 121 at Hawai'i Community College.)

105 Accelerated Elementary Japanese (8) (Y)

Development of listening, speaking, reading and writing. Structural points introduced inductively. Laboratory drill. Equivalent to Jpns 101B102. Offered only in the Summer session.

131-132 Elementary Conversational Japanese (4-4) (Y)

Development of conversational skills in modern spoken Japanese. (Credit limit: 4 from JPNS 101 or JPNS 131; 4 from JPNS 102 or JPNS 132.)

201-202 Intermediate Japanese (4-4) Yr. (Y)

Continuation of Japanese 102. More advanced colloquial structures and additional *kanji*. Pre: Jpns 102 or equivalent.

299 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: sophomore standing.

301-302 Third-Year Japanese (3-3) Yr. (Y)

Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, *kanji*. Pre: Jpns 202 or equivalent.

340 Japanese Composition (3) (AY)

Writing modern compositions using designated patterns, *kanji*, and themes. Pre: Jpns 202 or equivalent.

365 Japanese Literature in English (3) (AY)

Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as Eng 365, JpSt 365)

394 Special Topics in Japanese (1-3)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: junior standing and consent of the instructor.

399 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: junior standing.

401-402 Fourth-Year Japanese (3-3) Yr. (Y)

Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, and additional *kanji*. Pre: Jpns 302 or equivalent.

425 Translation Workshop (3) (AY)

Theory and practice of translation of Japanese materials into English. Emphasis on literary translation, but non-literary texts may also be considered. Pre: Jpns 302 or consent of instructor. May be repeated once for credit.

451-452 Structure of Japanese (3-3) Yr. (AY)

Phonology, morphology, syntax of modern colloquial grammar. Pre: Ling 102 and Jpns 202, or consent of instructor. (Same as Ling 451B452)

481-482 Readings in Modern Japanese Literature (3-3) Yr. (AY)

Reading and discussion in Japanese of selected works of fiction, poetry, and drama. Pre: Jpns 302 or consent of instructor. May be repeated once for credit.

499 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: senior standing.

Spanish (Span)

Students who have demonstrated competence in Spanish in high school will not be admitted to Span 101 and must take a placement test before enrolling in a course in Spanish.

101-102 Elementary Spanish (4-4) Yr. (S)

Beginning course, primarily emphasizing oral practice. Laboratory drill.

201-202 Intermediate Spanish (4-4) Yr. (Y)

Continuation of oral practice with increasing emphasis on reading and written composition. Laboratory drill. Pre: Span 102 or equivalent.

299 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: sophomore standing.

303-304 Advanced Grammar and Composition (3-3) Yr. (IO)

Detailed study of Spanish grammar. Cultivation of accuracy and elegance in written expression. Pre: Span 202 or equivalent.

399 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: junior standing.

499 Directed Studies (1-3)

Permission of the instructor and statement of planned reading or research required. Pre: senior standing.

LIBERAL STUDIES (LStu)

Office: EKH 231, 974-7482

Professors:

A. Didrick Castberg, Ph.D.

Lawrence Heintz, Ph.D.

Associate Professor:

Jacquelyn Pualani Johnson, M.A.

The Liberal Studies Program is designed for the student who wishes to: (1) study a particular problem or theme through a multi-disciplinary constellation of courses; or (2) create an academic major-equivalent for which there are relevant courses but for which there is no approved degree program. Any student not on academic probation may apply for admission to the program by completing an application form on which the following must be included (a) the educational goals of the proposed program (major-equivalent); (b) an explanation of why these goals cannot be achieved through an existing major program; (c) a justification of the courses included in the major-equivalent in terms of the program goals; and (d) a list of courses that will comprise the major-equivalent, which have a minimum of 33 semester hours, of which at least 24 hours must be in upper-division courses. The application form must be approved by the Faculty Advisor, the Liberal Studies Coordinator, and the Senate's Academic Affairs Committee before the end of the student's junior year (88 semester hours). The form must be submitted to the Liberal Studies Coordinator no later than November 10 for the fall semester or April 10 for the spring semester.

Three programs have been approved in Liberal Studies. Students who desire Elementary Education should apply directly to Dr. Zulich. Those who desire Religious Studies or Administration of Justice should apply to Dr. Mikkelson and Dr. Castberg; respectively. Students who wish to design a distinctive liberal studies program must consult with the Liberal Studies Coordinator, Associate Professor Jacquelyn Johnson.

Administration of Justice Program

The Administration of Justice option in the Liberal Studies degree program is a multidisciplinary program which combines existing College of Arts and Sciences and Hawai'i Community College courses into a major equivalent that cover the most important areas of Administration of Justice as offered in a liberal arts institution. The program provides for either an applied or theoretical emphasis. The student who pursues an applied emphasis will have the foundation needed for a career in an agency of the criminal justice system. Those who choose the theoretical or "law and society" emphasis will be well-prepared for government service, law school or graduate work in criminal justice.

Advisors: D. Castberg, L. Heinz

Major: 36 semester hours

- Required courses:** AJ 101*, Eng 309, Phil 220 or 315, Pols 360, Pols 422, Soc/Pols 324, Soc/Pols 380.
- Electives:** 15 semester hours, with a maximum of two courses from the same discipline, selected with the advice and consent of an Administration of Justice advisor from the following: AJ 126*, AJ 230*, AJ 253*, Phil 320, Phil 325, Phil 425, Pols 420, Pols 421, Psy 320, Psy 322, Psy 323, Psy 324, Soc 240, Soc 280.
- The program must meet all of the requirements of the Liberal Studies major as described elsewhere in this catalog, including a minimum of 24 credits of upper division work.
- Those courses indicated with an asterisk (*) must be taken at a community college; they are not offered at UH Hilo.

LINGUISTICS (Ling)

Office: EKH 214, 974-7479

Professors:

Ronald A. Amundson, Ph.D.
Paul W. Dixon, Ph.D.
April R. Komenaka, Ph.D.
William H. Wilson, Ph.D.

Associate Professors:

Masafumi Honda, Ed.D.
Kauanoë Kamanā, M.A.
Leila L. Kanno, Ph.D.
Christopher A. Reichl, Ph.D.

UH Hilo is one of a few colleges and universities in the United States to offer a Bachelor of Arts degree in Linguistics. The linguistics program offers a broad range of courses taught by faculty from several different disciplines, each of whom approaches human language from a distinctive perspective.

A major in linguistics prepares a student for graduate study in specific languages (including English) as well as in linguistics, and for many careers in fields as diverse as law, management, publishing, teaching English as a second or foreign language, the diplomatic service, language research and policy making.

Major requirements:

1. 30 semester hours of linguistics courses, including:
 - a. Ling 102 or 121; Ling 211, 311 and 321.
 - b. 18 additional semester hours in linguistics, of which at least 12 semester hours must be at the 300-level or above.
2. Two years of college-level foreign language study or the equivalent.

Minor requirements:

1. A total of 18 semester hours of linguistics courses including:
 - a. Ling 102, Ling 311 or Ling 321.
 - b. Twelve additional credits in Linguistics courses, of which 6 semester hours must be at the 300-level or above.
2. One year of college-level foreign language study or the equivalent.

102 Introduction to Linguistics (3) (Y)

A broad introduction to general linguistics: survey of phonology, morphological, syntactic, and semantic analysis, and historical and comparative linguistics. (Formerly Ling/Eng 203).

121 Introduction to Language (3) (S)

Linguistically oriented approaches to human behavior, including ethnolinguistics, sociolinguistics, and psycholinguistics. The way language functions in culture, society, and the cognitive processes. (Same as Anth 121)

211 Phonetics (3) (Y)

An introduction to the International Phonetic Alphabet as it applies principally to American English. (Same as SpCo 211)

299 Directed Studies (1-3)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

311 Phonology (3) (AY)

Binary value, distinctive feature analysis of the speech sounds of the natural languages of the world. Consideration given to language change, dialect, and stylistic variation, and phonological universals. Pre: Ling 102 or 121 or consent of instructor. (Same as SpCo 311)

320 History of the English Language (3) (AY)

The major developments in the English language from the 5th century to the present day. Pre: Eng/ESL 100, Ling 102 or Ling 121, or consent of instructor. (Same as Eng 320)

321 Morphology and Syntax (3) (IO)

Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax, using data drawn from a wide variety of languages. Pre: Ling 203 or consent of instructor. Recommended: Ling 102. (Same as Anth 321, Eng 321, SpCo 321)

324 Modern English Grammar and Usage (3) (IO)

The fundamentals of English morphology and syntax, conventions of written and spoken English, and sociolinguistic aspects of major English registers and dialects. Pre: Eng/ESL 100, Ling 102 or Ling 121, or consent of instructor. (Same as Eng 324)

331 Language in Culture and Society (3) (AY)

An examination of the articulation of language in social and cultural context, including topics relevant to sociolinguistics and ethnolinguistics. Pre: Anth/Ling 121 or Ling 102 or consent of instructor. (Same as Anth 331)

333 Psycholinguistics (3) (AY)

Theory and method in the investigation of the relationship between language and cognition, first- and second-language acquisition, speech pathologies. Pre: Psy 112, which may be taken concurrently, or its equivalent. (Same as Psy 333)

344 Children and Language (3) (AY)

Strategies of language acquisition used by children; emphasis on investigative skills and methods, including some field work. Recommended prerequisite: Ling 102 or Ling 121. (Same as Ed 344, Eng 344)

347 Pidgins and Creoles (3) (Y)

A study of the world's pidgins and creole with special reference to the Pacific region; the origin and nature of pidgins and creoles; the relationship of Hawaiian Creole English to other creoles in the world; the link between the development of a creole and language acquisition. (Same as Anth 347, Eng 347; recommended Ling 102 or 121)

351 Methodology of Foreign Language Teaching (3) (IO)

Foreign language teaching and learning from the perspectives of theory and practice. The application of modern linguistics to specific problems confronting the teacher. Pre: Ling 102 or consent of instructor. (Same as IS 351)

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

410 Language and Meaning (3) (IO)

Modern and historical theories of meaning, reference, and the relations between language and knowledge of the world. Also, ordinary language, ideal languages, and current developments in psychology and linguistics. Pre: previous work in philosophy and linguistics, or consent of instructor. Recommended: Phil 230. (Same as Phil 410)

451-452 Structure of Japanese (3-3) Yr. (AY)

Phonology, morphology, syntax of modern colloquial grammar. Pre: Ling 102 and Jpns 202 or consent of instructor. (Same as Jpns 451B452)

453 Hawaiian Phonetics and Phonology (3) (AY)

Sound system of the Hawaiian language. Stylistic and regional variation. Interaction of the Hawaiian sound system with the sound systems of other languages, especially that of English. Conducted in Hawaiian. Pre: Haw 202, which may be taken concurrently, or equivalent; Ling 102, Ling 211, Ling 311 recommended. (Same as Haw 453)

454 Hawaiian Morphology and Syntax (3) (AY)

Grammatical system of the Hawaiian language. Conducted in Hawaiian. Pre: Haw 202, which may be taken concurrently, or equivalent; Ling 102 recommended. (Same as Haw 454)

455 Hawaiian: A Polynesian Language (3) (A)

The similarities and differences among Polynesian languages and the reconstruction of their common ancestor language. The development of Hawaiian from that common ancestor. Conducted in Hawaiian. Pre: Haw 301, which may be taken concurrently, and Haw 453 or Ling 102; Haw 454, Ling 371 recommended. (Same as Haw 455)

494 Special Topics in Linguistics (1-3) (IO)

Advanced topics chosen by the instructor. Course content varies from semester to semester and the course may be repeated for credit, provided that a different topic is studied. Pre: junior or senior standing and consent of instructor.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

MARINE SCIENCE (Mare)

Office: LS-2, 974-7383/974-7544

Professors:

Walter C. Dudley, Ph.D.

Leon E. Hallacher, Ph.D.

Associate Professor:

Brian N. Tissot, Ph.D.

Assistant Professors:

Karla J. McDermid, Ph.D.

Christopher D. Winn, Ph.D.

The Marine Science program is well-rounded and multi-disciplinary. It has been carefully designed to take full advantage of the unique variety of marine environments available for study on and around the island of Hawai'i. Students begin with introductory courses in general oceanography and marine biology. These are followed by intermediate level courses in global environmental change, and by courses in marine ecology, marine monitoring techniques, and in statistical applications in marine science. The most advanced level in the program is made up of specialized courses in marine geology, chemical oceanography, physical oceanography, and marine biology. The program of study culminates in a two-semester senior thesis research program involving proposal writing, library research, field data collection, laboratory work, computer analysis, report writing and oral presentation.

The major is divided into two tracks: the broader, interdisciplinary marine science track, and the biologically-oriented marine biology track. In addition, a marine science minor is available. The minor offers a broad exposure to marine science with a biological

orientation and is suitable for teaching, marine ecotourism, marine recreation, or for graduate school preparation.

Students who plan on a career in teaching may select the Natural Sciences degree for teachers with an added minor in marine science. Through electives (Mare 434, 435) the minor offers specialty courses in how to effectively teach ocean science using both classroom and field exercises, as well as marine courses most applicable for teachers.

Students seeking careers in marine ecotourism or marine recreation may combine the marine science minor with a major in Anthropology, Business Administration, Economics, Geography, or Hawaiian Studies. The minor gives students a broad background in marine science with special consideration to the plants, animals and natural history of the Hawaiian Islands.

Students wishing to pursue an advanced degree in a specialized branch of marine science after graduation may choose to major in a traditional discipline (biology, chemistry, geology, physics), yet elect to add the marine science. The minor gives students a broad background in marine science preparation for post-baccalaureate education in graduate school.

In addition, Marine Science is an approved academic major for entry into the Teacher Education Program at UHH. With a B.A. in Marine Science, a student is qualified to apply for the Teacher Education Program and earn a certificate in elementary or secondary teaching.

Students may also learn a variety of ocean research and marine recreation skills through the Marine Option Program at UH Hilo. Training in scuba research techniques, underwater photography, seamanship, fishing, sailing and kayaking are all available for students in the marine science program.

Major:

Marine Science Track: 43 semester hours in marine science

Required:

Mare 171, Mare 201, Mare 250, Mare 282, Mare 350, Mare 350L, Mare 382, Mare 425, Mare 440, Mare 461, Mare 470, Mare 471, general chemistry (Chem 124-125, 124L-125L); college physics (Phys 106-107, 170L-171L); applied calculus (Math 115).

Electives:

9 credits of Mare electives at the 300-400 level.

Marine Biology Track: 40 semester hours in marine science

Required:

Mare 171, Mare 201, Mare 250, Mare 282, Mare 350, Mare 350L, Mare 371, Mare 372, Mare 382, Mare 470, Mare 471, Mare 484; Biol 125; general chemistry (Chem 124-125, 124L-125L), organic/biochemistry (Chem 141); college physics (Phys 106-107, 170L-171L); applied calculus (Math 115).

Electives:

2 of the following 3 courses: Mare 425, Mare 440, Mare 461

Minor: 24 semester hours in marine science

Required:

Mare 171, Mare 201, Mare 382, Mare 371, Mare 372, Mare 484

Electives:

6 credits from the following list: Mare 264, Mare 364, Mare 425, Mare 434, Mare 435, Mare 440, Mare 461

171 Marine Biology (3) (S)

Marine plants and animals: classification, structure, physiology, ecology and adaptations to the marine environment. This course satisfies CAS general education requirements in the Natural Sciences. (Same as Biol 171)

171L Marine Biology Laboratory (1) (Y)

Provide students with direct exposure to the biota of Hawai'i via laboratory and field trips to sites around Hilo. The course focuses on the identification, natural history, and ecology of common marine organisms. Pre: current or previous enrollment in Biol/Mare 171. (Same as Biol 171L)

190 Hawaiian Marine Field Experience (2) (Y)

Provides a unique opportunity for students to experience the marine environment of the Big Island. Course consists of field trips to coastal and underwater sites around the island. Some swimming and snorkeling involved but not required. (Same as Biol 190)

201 Oceanography (3) (S)

Geological, chemical, physical and biological aspects of the ocean; structure, formation, and features of ocean basins; seawater's properties and their distribution; currents, waves, tides; characteristics of marine organisms; marine ecological principles.

201L Oceanography Laboratory (2) (Y)

The basic techniques of oceanography including: marine charts and navigation, bathymetry, marine sediments, techniques for measuring salinity, temperature, dissolved oxygen, and surface and deep circulation, wave dynamics, plankton sampling and identification, marine fishes and invertebrates, and marine wildlife management techniques used in tagging sea turtles. Field trips required. Pre: concurrent or previous enrollment in Mare 201.

250 Statistical Applications in Marine Science (3) (S)

Hands-on approach to design field experiments, collect ecological data, analyze the data on microcomputers using statistical methods, and present results. Requires completion of an independent project using data collected in the field followed by the preparation of both written and oral reports. Pre: Mare/Biol 171 or Mare 201. (Same as Biol 250)

262 Introduction to Aquaculture (2 lec., 1 lab) (3) (Y)

(Aquaculture 262, College of Agriculture, may be taken for marine science credit as Mare 262).

264 Quantitative Underwater Ecological Survey Techniques (QUEST) (3) (Y)

The application of commonly utilized nearshore underwater ecological surveying techniques using scuba. Intensive two-week course combining lecture and field work. Data will be collected in the field, reduced, analyzed and presented in an oral report. (Same as Biol 264)

282 Global Change (3) (Y)

Principal components of global change and impacts on the marine environment. Course focuses on the interdisciplinary nature of global change and interrelationships to biological, physical, anthropological, economic, and political concepts. Pre: college-level science course.

282L Global Change Laboratory (1) (IO)

Elements of global change in the physical, chemical and biological properties of the Hawaiian Islands using laboratory exercises and field trips. Involves shipboard water sampling and analysis, snorkeling on coral reefs, and hiking in rain forests. Pre: previous or concurrent enrollment in Mare 282.

310 The Atoll Ecosystem (3) (Y)

Formation, structure, distribution, oceanography, biota and ecology of atolls. Human interactions, historical and modern, with atoll ecosystems. Atoll resource management issues and actions. Pre: Mare/Biol 171, Mare 201, or Biol 156 or consent of instructor.

350 Marine Monitoring and Analysis (3) (S)

Theoretical and practical planning and implementation of data collection and analysis of the marine environment. Techniques include measuring geological, chemical, and physical oceanographic properties; estimating the abundance and diversity of plankton, nekton, and benthos; and use of modern data recording and analyzing systems. Pre: Biol/Mare 250; Mare 201.

350L Marine Monitoring and Analysis Laboratory (1) (S)

Field and laboratory data collection in the marine environment and its statistical analysis. Techniques include measuring geological, chemical, and physical oceanographic properties; estimating the abundance and diversity of plankton, nekton, and benthos; and use of modern data recording and analyzing systems. Pre: Mare/Biol 250; Mare 201; concurrent enrollment in Mare 350.

351 Culture of Aquatic Plants and Invertebrates (2 lec., 1 lab) (3) (AY)

(Aquaculture 351, College of Agriculture, may be taken as marine science credit as Mare 351.)

352 Culture of Finfish (2 lec., 1 lab) (AY)

(Aquaculture 350, College of Agriculture, may be taken as marine science credit as Mare 352.)

360 Marine Resources (3) (IO)

A survey of human use of the marine environment including physical and biological resources. Topics covered include: fisheries, mariculture, marine mineral and energy resources, chemical resources of sea water, the use of coastal lands and waste disposal in the sea. Pre: Mare 201 or Biol/Mare 171, or consent of instructor. (Same as Biol 360)

364 Advanced QUEST (3) (Y)

Students lead a dive team learning underwater ecological surveying techniques; supervise field data collection, data reduction and analysis, and team presentation of written and oral reports; and assist in training students in identification of marine organisms. Pre: scuba certification, UH diving certification, current CPR/first aid, Biol/Mare 264, and consent of instructor. Students receive CR/NC for the course. (Same as Biol 364)

366 Tropical Marine Research Investigations (3) (Y)

Research projects on marine-related problems. Students will do a literature search; develop experimental design; collect, reduce and analyze data; do a written final report; and present findings at a symposium. Projects will be selected from a list of topics or can be original with the consent of the instructor. Pre: consent of instructor. (Same as Biol 366)

371 Biology of Marine Invertebrates (3) (Y)

A survey of the major groups of invertebrates focusing on those dominant in the marine environment. Students will learn methods used to identify and classify invertebrates and will survey the anatomy, physiology, and natural history of the major groups. Pre: Biol/Mare 171 or Biol 150 or their equivalent. (Same as Biol 371)

371L Biology of Marine Invertebrates Laboratory (1) (Y)

Direct exposure to the major groups of invertebrates in the marine environment, focusing on those present in Hawai'i. Students will learn to identify and classify invertebrates and will survey the anatomy and natural history of the major groups. Pre: concurrent or previous enrollment in Biol/Mare 371. (Same as Biol 371L)

372 Biology of Marine Plants (3) (Y)

Diversity, distribution and ecology of marine macroalgae and seagrasses. Students will learn methods to identify common marine plants of the Hawaiian Islands and the tropical Pacific. Marine plants and their relation to human affairs will be discussed. Pre: Mare/Biol 171 or Biol 153 or consent of instructor.

382 Marine Ecology (3) (Y)

The ecology of marine systems with emphasis on the interactions between organisms in biological communities and the environment. Pre: Biol/Mare 171 or its equivalent, or consent of instructor. (Same as Biol 382)

400 Aquacultural Engineering (3 lec., 1 lab) (4) (AY)

(Agricultural Engineering 400, College of Agriculture, may be taken for marine science credit as Mare 400.)

425 Chemical Oceanography (3) (Y)

Chemical processes occurring in marine and estuarine waters and their impact on the nearshore and oceanic environments. Topics include: salinity, chlorinity, major and minor elements, and dissolved gasses in seawater; macro and micronutrients, dissolved and particulate organic matter; geochemistry of marine sediments; and radiometric dating and stable isotopes as water mass tracers. Pre: Chem 125, Mare 201.

434 Teaching Marine Science (3) (AY)

Marine science concepts and teaching strategies for pre-service and inservice teachers. Includes geological, chemical, physical and biological topics. Pre: Mare/Biol 171 or Mare 201.

435 Marine Field Experience for Teachers (3) (AY)

Training for pre-service and inservice teachers in marine science field experiences content and strategies. Includes geological, chemical, physical and biological topics. Pre: Mare/Biol 171 or Mare 201.

440 Physical Oceanography (3) (Y)

Topics in physical oceanography include: distribution of water characteristics in the ocean; dynamics of circulation and water masses; wave characteristics including formation, propagation, dispersion and refraction; dynamic and equilibrium theories of tides as well as tsunamis, seiche, and internal waves; sound and optics; and the latest methods and instrumentation in physical oceanography. Pre: Phys 107, Mare 201

461 Marine Geology (3) (Y)

A detailed study of the ocean floor to include marine stratigraphy, plate tectonics, oceanic sediments and paleoceanography. Pre: Mare 201, and one of Chem 124, 125 or Mare 440; or consent of instructor.

470 Senior Thesis Research (3) (Y)

Practical experience in designing and completing a marine-related research project. Students will submit project proposals for evaluation and approval. Once approved, students will do a thorough literature review, develop an experimental design, and collect and record data. Weekly progress reports will be required. Data collection will be completed by the end of the semester. Pre: Mare 350, Eng 309, and CS 101, or consent of the instructor.

471 Senior Thesis Report (3) (Y)

Second-semester continuation of Mare 470. Students finish their research projects no later than six weeks into the semester. Following data reduction and analysis, a final written report will be prepared. Students will also present 15-minute seminar presentations on the results of their projects. Pre: Mare 470 and consent of instructor.

475 Fish Population Dynamics (2 lec., 1 lab) (3) (AY)

(Aquaculture 475, College of Agriculture, may be taken for marine science credit as Mare 475.)

484 Biology of Fishes (3) (AY)

The biology of marine and freshwater fishes. Topics covered include: general anatomy, locomotion, respiration, osmoregulation, sensory systems, reproduction, electrosensitive and electrogenic fishes, coloration and bioluminescence in fishes, migratory patterns, trophic ecology, territorial behavior, and phylogenetic interrelationships. Pre: Biol/Mare 171 or Biol 150 or their equivalent, or consent of instructor. (Same as Biol 484)

484L Biology of Fishes Laboratory (1) (IO)

Anatomy of jawless, cartilaginous and bony fishes. Review of common local reef fishes. Optional laboratory and field trips for Biology of Fishes. (Same as Biol 484L)

MATHEMATICS (Math)

Office: LS2, 974-7383

Professor:

Carole K. Miura, Ph.D.

Arthur A. Sagle, Ph.D.

Associate Professors:

Mitchell J. Anderson, Ph.D.

Robert G. Griswold, Ph.D.

Assistant Professors:

Pi-Chun Chuang, Ph.D.

Jerry K. Kanno, M.A.

The Mathematics program is designed to give the undergraduate a broad background in modern mathematics and its applications. The upper-division mathematics courses represent a core leading to further work in mathematics or mathematically related areas. Applications may be pursued in such areas as systems theory, operations research, statistics, and numerical analysis which are widely used in computer science, business, and the physical, life and social sciences. Students majoring in other fields whose interests require a strong background in mathematics can minor in mathematics.

Major: 37 semester hours of mathematics courses

1. **Required courses:** Math 205-205L, 206-206L, 231, 232, 311, 431-432, 454-455.
2. **Electives:** at least 6 semester hours of upper division mathematics courses.

Minor: 26 semester hours of mathematics courses

1. **Required courses:** Math 205-205L, 206-206L, 231, 232.
2. **Electives:** at least 12 semester hours of upper division mathematics courses.

In addition to the above, mathematics students are expected to have computer experience at least equivalent to Math 111. It is suggested that students take CS 215 or Phil 345 before Math 431-432 or Math 454-455.

Certificate in Systems Modeling: 23 semester hours.

The Certificate in Systems Modeling is an interdisciplinary program designed to give real world problems a mathematical description through the use of a model. Components of this model may be analyzed and controlled using systems methods to simulate, interpret and solve the original problem. The student must complete the required courses below and is invited to consider the suggested electives in an area of interest. Advanced students may obtain experience through a work/project program.

Required courses: Math 205-205L, 206-206L, 311, 312, 415.

Elective courses from areas of: Optimization and Decisions (Math 341 or Econ 420), Probability (Math 321 or QBA 360), Numerical Methods (Math 407), Simulation (CS 471, 482; QBA 430 and 499), and suitable topics in Math 394, 494.

All mathematics courses satisfy the CAS General Education “quantitative and logical reasoning” requirements.

100 Survey of Mathematics (3) (S)

The role of mathematics in our modern technological society. Topics may include logic, number systems, computers, algebra, and probability. Pre: one year of high school algebra or equivalent.

101 Introduction to Applied Mathematics (3) (S)

An application oriented course designed for the liberal arts student. Concepts are introduced as needed to solve specific problems. Topics may include linear programming, annuities, expected values and decision making, and exponential growth. Pre: One year of high school algebra or equivalent.

103 Fundamentals of Algebra (3) (S)

Review of the real number system; basic algebraic concepts; equations; functions; graphs; linear inequalities; systems of equations and inequalities.

104 Precalculus Mathematics (3) (S)

Math 104-104L is an intensive one semester focus on the material covered in the sequence Math 104F-104G. A student may not receive credit for both Math 104-104L and Math 104F-104G. Pre: C in 103 or equivalent, or consent of instructor. Concurrent enrollment in Math 104L is required.

104F Precalculus I: Elementary Functions (3) (Y)

Functions and relations; polynomial and rational functions; exponential and logarithmic functions; matrices; sequences and series. Pre: C in 103 or equivalent.

104G Precalculus II: Trigonometry and Analytic Geometry (3) (Y)

Trigonometric functions; analytic trigonometry; analytic geometry. Pre: C in 103 or equivalent; 104 recommended.

104L Precalculus Mathematics Laboratory (1) (S)

Functions, including polynomial and rational, trigonometric, exponential and logarithmic, inverse, polar and parametric, with an emphasis on conceptual visualization. Instruction will also be given on the use of appropriate technology. Pre: completion of or concurrent enrollment in Math 104.

106 Fundamentals of Euclidean Geometry (3) (AY)

An axiomatic treatment of elementary Euclidean geometry focusing on theorems, proofs, and constructions.

107 Mathematics for Education I (4) (Y)

Concepts, properties and applications of number systems. Intended primarily for prospective elementary school teachers. Class time spent on both lectures and projects. Pre: Math 101 or one year high school algebra.

108 Mathematics for Education II (4) (Y)

Concepts, properties and applications of topics from probability, statistics, and geometry. Intended primarily for prospective elementary school teachers. Class time spent on both lectures and projects. Pre: Math 107 or consent of the instructor.

111 Mathematical Applications of Personal Computers (3) (IO)

Principles of personal computer operations, spreadsheets, text processing. Specialized mathematical software and elementary programming. Pre: C in 104-104L or C in 104G or equivalent.

113 Applied Logic (3) (IO)

Elementary treatment of sets, algebra, and logic circuits. Pre: one year of high school algebra or equivalent.

115 Applied Calculus (3) (S)

Emphasis on applications and computations rather than theory. Derivatives, curve sketching, optimization, exponential and logarithmic functions, integration, partial derivatives, and applications in these areas. Pre: C in 103 or equivalent.

121 Introduction to Statistics and Probability (3) (Y)

Basic topics in statistics and probability. Pre: C in 101 or 103 or equivalent.

205-206 Calculus I-II (3-3) (S-S)

Basic concepts of differentiation and integration with applications. Integrals of trigonometric, exponential and logarithmic functions; infinite series; techniques of integration and applications. Pre: C in 104 or C in 104G or equivalent for enrollment in 205, and C in 205 or equivalent for enrollment in 206, or consent of instructor. Concurrent enrollment in 205L-206L respectively is required.

205L Calculus I Laboratory (1) (S)

Basic differentiation and integration with an emphasis on conceptual visualization. Instruction will also be given on the use of appropriate technology. Pre: completion of or concurrent enrollment in Math 205.

206L Calculus II Laboratory (1) (S)

Numerical integration with applications, Taylor Series, basic differential equations, with an emphasis on conceptual visualization. Instruction will be given in the use of appropriate technology. Pre: C in Math 206 or concurrent enrollment in 206.

231 Calculus III (3) (S)

Discussion of topics in Math 205-205L and Math 206-206L in several variables; partial differentiation, max-min problems, multiple integration. Pre: C in 206-206L.

232 Calculus IV (3) (S)

Multiple integrals, line integrals, Green's Theorem, surface integrals, ordinary differential equations. Pre: C in 231.

299 Directed Studies (1-3) (IO)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

300 Ordinary Differential Equations (3) (Y)

Theory and methods of solutions of ordinary differential equations and systems of linear differential equations with constant coefficients. Power series solutions, Laplace transforms, and applications. Pre: C in 206-206L.

311 Introduction to Linear Algebra (3) (S)

Algebra of matrices, linear equations, vector spaces, linear transformations, eigenvalue problems, and basic applications. Pre: C in 206-206L or consent of instructor.

312 Introduction to Linear Systems (3) (AY)

Introduction to the concepts of linear systems with particular emphasis on basic examples. Topics include systems of linear differential equations, qualitative properties as stability, linear control systems with feedback, self-contained applications involving economics, life and physical sciences. Pre: C in 311.

320 Applied Statistics (3) (S)

Introduction to continuous distributions; sampling; estimation; tests of hypotheses concerning means, proportions, variances; linear regression; one-way and two-way ANOVA; use of statistical computer packages. Pre: C in 102 or C in 121 or consent of instructor.

321 Elementary Probability Theory (3) (Y)

Sets, discrete sample spaces, combinatorial probability, random variables, mathematical expectation, classical distributions, applications. Pre: Integral calculus or consent of instructor.

322 Elementary Mathematical Statistics (3) (IO)

Statistical inference, estimation, hypothesis testing, regression, correlation, introduction to analysis of variance. Pre: C in 321 or consent of instructor.

341 Operations Research I (3) (IO)

Modern mathematical methods used in the managerial, administrative, and planning areas. Topics include linear programming, transportation and assignment problems, and project management. Pre: C in 206-206L.

342 Operations Research II (3) (IO)

A continuation of Math 341 incorporating probability. Topics will include birth-death processes, queuing theory, inventory theory, and simulation. Pre: C in 206-206L and 321.

394 Topics in Mathematics (1-3) (IO)

Intermediate topics chosen by the instructor. Topics will be selected from both the theoretical and applied areas of mathematics. The course content will vary. It may be repeated for credit, provided that a different topic is studied.

399 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

407 Introduction to Numerical Analysis I (3) (Y)

Solutions of equations in one variable, direct and iterative methods for systems of linear equations, the algebraic eigenvalue problem, interpolation and polynomial approximation, error analysis and convergence for specific methods. Offered spring semester. Pre: C in 206-206L and 311 and programming experience.

408 Introduction to Numerical Analysis II (3) (IO)

A continuation of Math 407. Topics will include approximation theory, numerical integration and differentiation, solution of systems of nonlinear equations, numerical solutions to differential equations. Pre: C in 407.

415 Dynamic Systems (3) (IO)

Introduction to dynamic systems concepts as used in real world models. Review of linear systems. Concepts of control, input-output models, state space description. Nonlinear systems and linearization. Feedback, stability and simulation. Introduction to optimality. Pre: C in 206-206L and 312.

431-432 Real Analysis (4-4) Yr. (AY)

A study of the basic concepts and theorems underlying classical analysis. Pre: C in 232. Next offered 1994-95.

454-455 Modern Applied Algebra (3-3) Yr. (AY)

Basic concepts of algebraic structures, groups, rings, fields, polynomials with applications to coding theory, finite-state machines, algebraic systems theory. Pre: C in 311. Next offered 1995-96.

494 Special Topics in Mathematics (1-3) (IO)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Possible topics would be selected from real and complex analysis, elementary topology, matrix groups, numerical analysis, statistics, and probability. Pre: senior standing and consent of the instructor.

495A-495B Seminar (1-1) Yr. (Y)

Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as Astr 495A-495B, Geol 495A-495B, Chem 495A-495B and Phys 495A-495B)

499 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

MUSIC (Mus)CSee Performing Arts**NATURAL SCIENCES (NSCI)**

Office: LS 2, 974-7383

Professor:

Marlene Nachbar Hapai, Ph.D., Biology/Natural Sciences

Area Advisors:

William Heacox, Ph.D., Astronomy & Physics

Ernest Kho, Ph.D., Chemistry

Judith Gersting, Ph.D., Computer Science

Shirley Williams, Ed.D., Education

Jim Anderson, Ph.D., Geology

Karla McDermid, Ph.D., Marine Science

Carole Miura, Ph.D., Mathematics

In response to our nation's crisis in Science Education-its need for a more scientifically literate public and more scientists-UH Hilo offers a major that scans the whole field of the Natural Sciences and gives recipients of this degree a background desirable for a career working with other scientists or teaching at the elementary or secondary level.

The Natural Sciences major includes two tracks from which students may select: 1) Track A, recommended for those interested in a general science degree and also pursuing a career in elementary education, and 2) Track B, the major plus a required science minor recommended for those interested in pursuing a career in science or secondary science teaching.

This more general science major includes courses in Biology, Chemistry, Physics, Astronomy, Math, Computer Science, Meteorology, Oceanography, and in the History and Philosophy of Science.

Requirements for the Natural Sciences major:**Track A: Recommended for those interested in elementary teaching**

- * General Education Requirements
- * Science Core Requirements
- * Science Breadth Requirements: Minimum: Fulfill all subject area sequences in Option 1. However, may fulfill subject areas in Option 2.
- * Upper Division Requirements: 45 credits required of which the following must be included: NSCI450, NSCI451, NSCI460, NSCI461, NSCI470, NSCI471, NSCI485
- * Hawaiian/Asian/Pacific Requirement
- * Complete a minimum of 120 credits to satisfy credit requirements for a Bachelor of Arts degree
- * Other requirements: Fulfill Liberal Studies-Elementary Education "Required Core" and "Required Distribution" requirements as required by the Education Department for all students interested in applying for the Elementary Basic Certification Cohort Model.

Track B: Recommended for those interested in pursuing a career in the sciences or in secondary teaching

- * General Education Requirements
- * Science Core Requirements
- * Science Breadth Requirements: Fulfill requirements listed in Option 1 or Option 2 for each subject area sequence, with at least 3 of the subject area sequences selected in Option 2. Subject area sequences not selected in Option 2 must then be completed under Option 1.
- * Additional Requirements: a) Complete coursework for a minor in the natural science of choice (courses common to both the breadth and the minor requirements may be used to satisfy both); b) Complete a minimum of 120 credits to satisfy requirements for a Bachelor of Arts degree; c) Fulfill Upper Division requirements; d) Fulfill Hawaiian/Asian/Pacific requirement.

The following minors are available to those students selecting Track B:

Biology	Earth/Space Science	Mathematics
Chemistry	Geology	Physics
Computer Science	Marine Science	

Science Core Requirements:

NSCI 295 (1) History and Philosophy of Science Seminar
Ed 406/CS 100 (3) Computers in Education/Principles of Computer Science
Phys/Geog 120 (3) Weather and Climate of Hawai'i
Mare 201 (3) Oceanography

Note: Phil 390 (History and Philosophy of Science) may substitute for NSCI 295.

Science Breadth Requirements:

Option 1

Astr 110 (3) General Astronomy
Astr 110L (1) General Astronomy Lab
Biol 101 (3) General Biology
Biol 101L (1) General Biology Lab
Phys 115 (3) Physics for the Liberal Arts
Geol 111 (3) Physical Geology
Geol 111L (1) Physical Geology Lab
Chem 114 (3) Introductory Chemistry
Chem 114L (1) Introductory Chemistry Lab
Math 107 (4) Mathematics for Teachers I (Track A only)
Math 108 (4) Mathematics for Teachers II (Track A only)
Math 115 (3) Applied Calculus (Track B only)

Option 2

Astr 180 (3) Principles of Astronomy I
Astr 181 (3) Principles of Astronomy II
Astr 110L (1) General Astronomy Lab
Biol 150 (3) Principles of Zoology
Biol 150L (1) Principles of Zoology Lab
Biol 153 (3) General Botany
Biol 153L (1) General Botany Lab
Phys 170/106 (3) General Physics I/College Physics I
Phys 170L (1) General Physics Lab I
Phys 171/107 (3) General Physics II/College Physics II
Geol 111 (3) Physical Geology
Geol 111L (1) Physical Geology Lab
Geol 112 (3) Historical Geology
Chem 124 (3) General Chemistry I
Chem 124L (1) General Chemistry
Chem 125 (4) General Chemistry II
Math 205-205L (4) Calculus I

295 History and Philosophy of Science Seminar (1)

Basic concepts in the philosophy of science, applied to case studies in the history of science.

333 Science Methods (Secondary) (3)

Introduction to the secondary science classroom: its physical, psychological, and content organization: the classroom laboratory; use of the scientific method: teaching techniques for biological and physical sciences. Pre: Basic courses in any two of the following: biology, chemistry, physics, earth sciences. (Same as Ed 333).

394 Special Topics in the Natural Sciences (1-3)

Selected topics in the natural sciences chosen by the instructor. The course content will vary. May be repeated provided a different topic is studied. Pre: Consent of instructor.

494 Special Topics in the Natural Sciences (1-3)

Selected topics in the natural sciences chosen by the instructor. The course content will vary. May be repeated provided a different topic is studied each time. Pre: Junior standing and/or consent of instructor.

Natural Sciences Certification (Elementary)

This Natural Science Certificate for elementary teachers offers teachers the opportunity to acquire a substantial background in the Natural Science. Composed of 12 science content credits and 6 methods credits, this 18-credit certificate focuses on presenting current information in the natural sciences and ways of applying this information in the elementary classroom. Methods courses focus on thinking skills; cooperative learning; learning styles; integrated and interdisciplinary learning; and organization of information from science content areas into an integrated curriculum for maximum application in the classroom.

NOTE: This certificate is presently funded through external grant monies and will continue to be offered as long as these monies are available or there are enough teachers enrolled in classes, thus making the program self supporting.

Prerequisites: All courses require participants to have a bachelor's degree from an accredited institution and teaching experience and/or consent of the instructor. Students selecting Track A of the Natural Sciences major may also take these courses in their junior and senior years after they have completed "Option Requirements" for science areas covered by specific certificate courses they are enrolling in.

NSCI 450 Biology and Chemistry for Teachers (2)

Fundamental topics in Biology and Chemistry are presented to assist teachers in introducing these areas to elementary students. Practical applications are emphasized. Various instructional modes are integrated into actual content area delivery.

NSCI 451 Ecology and Marine Biology for Teachers (2)

Fundamental topics in Ecology and Marine Biology are presented to assist teachers in introducing these areas to elementary students. Practical applications are emphasized. Various instructional modes are integrated into actual content area delivery.

NSCI 460 Physics and Geology for Teachers (2)

Fundamental topics in Physics and Geology are presented to assist teachers in introducing these areas to elementary students. Practical applications are emphasized. Various instructional modes are integrated into actual content area delivery.

NSCI 461 Astronomy and Meteorology for Teachers (2)

Fundamental topics in Astronomy and Meteorology are presented to assist teachers in introducing these areas to elementary students. Practical applications are emphasized. Various instructional modes are integrated into actual content area delivery.

NSCI 470 Math and Its Methods for Teachers (2)

Course emphasizes mathematics skills and a problem-solving approach to teaching mathematics to elementary students. Use of manipulatives to facilitate the learning of mathematics and concept development is focused upon. Interdisciplinary approaches to teaching mathematics and alternative means of assessment are also presented.

NSCI 471 Computer in Science and Math for Teachers (2)

The integration of computer technology into the elementary classroom in the areas of math and science will be explored in a practical setting. Students will have access to computers and pertinent software programs available at the elementary level.

NSCI 485 Teaching the Natural Sciences I (3)

Focus on current methodologies used in science teaching including: cooperative learning, motivational techniques, learning styles, interdisciplinary instruction, integrated instruction, critical thinking skills, science process skills, and the use of hands-on instruction.

NSCI 486 Teaching the Natural Sciences II (3)

Focus on incorporation of materials and methodology from other Natural Sciences Certificate courses into existing curriculum used by participating teachers or into their own curriculum guides. Additional Prerequisite: Must have taken at least 13 credits of the Natural Sciences Certificate Program or consent of instructor.

NURSING (Nurs)

Office: CH 8, 974-7383

Associate Professors:

Genevieve L. Kinney, Ph.D., R.N.

Cecilia P.S. Wong Mukai, Ph.D., F.N.P., R.N.

Assistant Professors:

Beth Ananda-Stout, M.S., C.N.M., R.N.

Katharyn F. Daub, M.N.Ed., R.N.

Phyllis J. Eide, M.S., M.P.H., R.N., C.N.S.

This degree will be granted by UH Hilo upon the recommendation of nursing faculty to those students who have successfully completed the prescribed curriculum.

To earn the degree, a student must satisfy the prerequisite, co-requisite and nursing course requirements for the BSN degree as specified in the UH Hilo catalog and BSN brochure in effect at the time of the student's initial enrollment in the nursing program. Students are expected to complete the program within five years of enrollment. Students who do not graduate within five years of enrollment will be subject to review and will, if necessary, be expected to meet requirements currently in effect.

The student is directly responsible to assure that all requirements are met for graduation.

Admissions Policies

Students qualify for admission into the upper division of the Generic Baccalaureate Nursing program after completing two years of prerequisite courses. Students with R.N. training who are transferring from an accredited college or university or from any institution which has an R.N. associate degree articulation agreement with

UH Hilo will be considered for the RN/BSN completion program. Admission is on a competitive space-available basis.

The criteria for admission to the nursing program are:

1. Timely submission of UH Hilo Common Application Form for newly entering students or "Change of Program" form for continuing students. (Designate NURH for the major.)
2. Timely submission of Nursing application form
3. 2.5 cumulative college grade point average
4. Completion of all college prerequisite courses (Note: Students transferring from outside the UH system must submit course descriptions for all non-nursing courses and course syllabi for nursing courses.) Fall admission only: Applications to the Bachelor of Science in Nursing program must be made by Feb. 1 for Fall entry. Applications may be picked up at the UH Hilo Admissions office.

Pre-Nursing Status:

Prior to formal admission into the upper division nursing program, students following the course of study to qualify for admission will be considered Pre-nursing students. Newly entering Pre-nursing students should indicate PRNU as the major on their Common Application Form. Continuing UH Hilo students who have not done so should submit a "Change of Program" form to indicate PRNU as the major. There are no special requirements for the PRNU major. Pre-nursing students should seek regular advisement from the nursing faculty regarding academic planning.

NLN Mobility Test Requirement

Diploma and foreign nursing degree candidates are required to take the National League of Nursing Mobility II Test prior to entering the program.

Academic Status and Progression Policies

The nursing faculty of UH Hilo are held responsible to the UH Board of Regents and the Hawaii State Board of Nursing for the quality of its nursing education. Inherent in this responsibility is the assessment of individual progression based upon academic and professional ethical standards. All UH Hilo policies are in effect and may be found in the academic regulations in the UH Hilo catalog. In addition, the following policies are in effect.

Degree Plan Change

If a student needs to modify program progression, she/he must submit a "Petition for Degree Plan Change" to the Nursing Admissions, Progression and Retention Committee for approval. Concurrence of the nursing faculty advisor is required.

Academic Suspension and Dismissal

A student failing to achieve a C or 2.0 grade in nursing courses at any point in her/his progression through the program may be suspended and/or considered for dismissal from the program based on the review and recommendation of the Nursing Admissions, Progression and Retention Committee. A student must repeat this failed course before progression to the next level of courses.

A student failing the same nursing course twice (less than a C or 2.0 grade) at any point in her/his progression through the program will be dismissed.

A student who fails more than two separate nursing courses at any point in her/his progression through the program will be dismissed.

A student may be subject to immediate suspension or dismissal from clinical activities, when, in the judgment of the nursing faculty, the welfare of the client, the public, or the University requires such action.

A student shall be suspended or dismissed only for reasonable cause and only after being given the opportunity to participate in the UH Hilo grievance protocol. Reasonable cause for suspen-

sion or dismissal includes but is not limited to the demonstrable behaviors contrary to the Code of Ethics and Standards of Practice of the American Nurses' Association and the International Council of Nurses and the rules and regulations of the Hawai'i Board of Nursing (Hawai'i Revised Statutes, Chapter 457). Students are responsible to be knowledgeable regarding these aforementioned codes, rules, and regulations.

Readmission Policy

A student who is qualified for readmission must submit an "Application for Readmission" to the Academic Admissions, Progression, and Retention Committee and follow proper procedures for readmission. A student is readmitted on a space-available basis.

Policy on Nursing Courses

The Nursing courses listed in the blocks below are restricted to students admitted to the upper division Nursing program, with a major designation of NURH. All courses within a block must be taken concurrently. Students may not proceed to the next block until all course requirements for the preceding block have been met. (Students in the RN/BSN program take courses within the block as determined by their program of study.) A course with an associated lab must be taken concurrently. Repeating a course/lab requires repeating the associated lab/course regardless of a passing grade. Repeated courses must be audited if previously passed.

Block I: NURS 347, 347L, 350, 351, 353, 353L

Block II: NURS 355, 355L, 356, 356L, 357, 357L, 358

Block III: NURS 450, 455, 455L, 456, 456L

Block IV: NURS 410, 410L, 457, 457L, 460, 468

The Nursing courses listed below do not require admission into the upper division Nursing program and may be taken with instructor and/or departmental approval, as required:

Nursing electives: NURS 370, 371, 471, 472

Corequisite courses: NURS 203, 280, 475

Required grading for all nursing **practicum** courses will be CR/NC. This affects the following courses:

NURS 347L, NURS 353L, NURS 355L, NURS 356L, NURS 357L, NURS 410L, NURS 455L, NURS 456L, NURS 457L.

203 General Pharmacology (3)

Pharmaceuticals discussed with emphasis on methods and sites of administration, mechanisms of action, toxicity, rate and uses of major therapeutic agents. Intended for undergraduates in the health sciences and related fields. Prerequisites: Math 103, Bio 243, 243L, 244, 244L.

280 Statistical Reasoning in Social Inquiry (3) (S)

An introduction to basic descriptive, correlational, and inferential statistics used in the social sciences and education. (Same as Soc 280)

347 Health Assessment (3) (Y)

Introduction to comprehensive health assessment of clients across the life span using critical thinking skills. Emphasis on the pathophysiologic influences on subjective and objective findings of selected systems. Detailed health assessment techniques will be introduced as well as methods of comprehensive history-taking.

347L Health Assessment Practicum (1) (3 lab hrs.) (Y)

Application of the nursing process in the comprehensive health assessment of clients across the life span. Emphasize the pathophysiologic and/or psychopathologic influences on subjective and objective findings of selected systems. Detailed health assessment techniques as well as comprehensive history-taking.

350 Transcultural Care and Health Promotion (3) (Y)

The course introduces basic principles of teaching-learning, adult learning, group process and basic transcultural care and health promotion concepts. Pre: NURH status and junior standing.

351 Professional Nursing Issues and Trends (2) (Y)

Introduction of contemporary health reform issues and trends affecting the nursing profession. Overview of the history of nursing, significant national nursing studies, code of ethics, relationship of nursing theory to nursing practice and nursing research. Prerequisites: NURH status and junior standing.

353 Nursing Concepts and Skills (3) (Y)

Introduction to the art and science of the professional role of transcultural nursing care. Fundamental nursing concepts, process, and practice will provide the novice nursing student with a firm foundation for advanced nursing study.

353L Nursing Concepts and Skills Practicum (3) (9 lab hrs.) (Y)

Introduction to the application of the nursing process in the delivery of care to medical/surgical populations. Comprehensive, faculty-guided experiences in developing a beginning knowledge base for entry into the nursing profession.

355 Adult Health Care I (2) (Y)

Care of adult clients with acute medical/surgical problems. Integration of pathophysiology in the understanding of human responses to health deviations. Use of the nursing process to develop individualized, culturally congruent care plans.

355L Adult Health Care I Practicum (3) (9 lab hrs.) (Y)

Care of adult clients with acute medical/surgical problems. Integration of pathophysiology in the understanding of human responses to health deviations. Use of the nursing process to develop individualized, culturally congruent care plans.

356 Parent-Newborn Health Care (2) (Y)

Emphasizes the nursing process in applying culturally congruent nursing care to child bearing families.

356L Parent-Newborn Health Care Practicum (3) (9 lab hrs.) (Y)

Application of the nursing process in providing culturally congruent nursing care interventions to child bearing families. Supervised clinical experiences in the labor and delivery room, newborn nursery, post-partum units, as well as community meetings.

357 Mental Health Care (2) (Y)

Application of mental health concepts, transcultural caring and professional nursing skills in delivering mental health care. Includes study and application of treatment modalities appropriate to selected psychopathological conditions.

357L Mental Health Care Practicum (3) (9 lab hrs.) (Y)

Application of nursing process in the delivery of mental health care to selected populations. Faculty guided clinic experience in acute and community settings.

358 Nursing Research (3) (Y)

Introduction to the research process and the application of the scientific method in nursing. Pre: NURH status and consent of instructor.

394 Special Topics in Nursing (1-3)

Intermediate topics chosen by the instructor. Topics will be selected from both the theoretical and clinical areas of professional nursing. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: NURH status and consent of instructor.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: NURH status and consent of instructor.

410 Community Health Care (2) (Y)

Content will integrate nursing and community health theories. Emphasis on culturally sensitive care to families and other groups in a variety of community health delivery settings. Identification of community resources and processes for implementing change to promote community health.

410L Community Health Care Practicum (4) (12 lab hrs.) (Y)

Application of the nursing process in the delivery of nursing care to individuals, families, groups, and communities. Integration of community resources in collaborative relationships with community agencies to service populations with specific health care needs.

450 Client Care Management (2) (Y)

Exploration of the theoretical basis upon which patient care management is based. Organizational structures, leadership styles, priority setting, decision-making, problem-solving, motivation, assertiveness and conflict resolution. Prerequisite: NURH status and senior standing. Corequisite: Nurs 455.

455 Adult Health Care II (3) (Y)

Prevention intervention and therapeutic modalities in caring for adult clients with acute medical and/or surgical problems. Emphasis on increasing medical-surgical nursing expertise with incorporation of client management skills and more advanced problem solving.

455L Adult Health Care II Practicum (5) (15 lab hrs.) (Y)

Continued care of adult clients with acute medical and/or surgical problems. Emphasis on increasing medical-surgical nursing expertise with incorporation of patient management skills and more advanced problem solving.

456 Parent-Child Health Care (2) (Y)

Emphasizes the nursing process in the provision of safe and culturally appropriate care to children in the context of the family. Preventive health care, anticipatory guidance and health promotion in a developmental context are explored.

456L Parent-Child Health Care Practicum (3) (9 lab hrs.) (Y)

Application of the nursing process in delivery of nursing care to infants, children, adolescents, and their families. Focus on growth and development, health assessment and health promotion/disease prevention.

457 Advanced Health Care (2) (Y)

Management and leadership concepts in delivering comprehensive nursing care to clients with complex health care needs. Emphasis on critical thinking and evaluation of clinical judgment in nursing practice.

457L Advanced Health Care Practicum (3) (9 lab hrs.) (Y)

Application of the nursing process in the delivery of care to clients with complex health care needs using management and leadership concepts. Emphasis on critical thinking and evaluation of clinical judgment in nursing practice.

460 Nursing Care Management (2) (Y)

Overview of management concepts as applied to the nurse's workplace. The unique contributions of the individual nurse within a formal or informal organization will be examined. Emphasis on decision-making and problem-solving for commonly occurring nursing management situations. Pre: NURH status and senior standing.

468 Nursing Leadership: Politics of Care (2) (Y)

Overview of current health issues on the local, state, national and international levels. Emphasis on the concept of empowerment and active involvement in facilitating changes in health policies. Pre: NURH status and senior standing.

471 Introduction to Rural/Home Health Care (3) (AY)

Introduction to the theory and role of the nurse in providing culturally congruent care in rural and home settings for client/family systems. Will examine the establishment of cooperative relationships with appropriate rural agencies.

475 Advanced Human Nutrition (3) (Y)

Advanced nutrition in human health and disease and the nurses's role in supporting nutritional care. Prerequisite: Chem 114, 114L, 141, 141L, Bio 243, 243L, Bio 244, 244L; or consent of instructor.

494 Special Topics in Nursing (1-3)

Advanced topics chosen by the instructor. Topics will be selected from both the theoretical and clinical areas of professional nursing. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: senior standing and consent of instructor.

499 Directed Studies (1B3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Electives

The following nursing electives are open to non-nursing majors:

370 Introduction to Transcultural Nursing (3) (AY)

Introduces theories of transcultural nursing and human caring with an emphasis on exploring the caring values, beliefs, client/family lifeways and health practices of different ethnic groups and self by using culturalogical care assessment skills.

371 Computers and Nursing (3) (Y)

Overview of computer systems and their roles in communications and data management both within and outside of the clinical context. Impact of computerized information processing on nursing practice.

471 Introduction to Rural/Home Health Care (3) (AY)

Introduction to the theory and role of the nurse in providing culturally congruent care in rural and home settings for client/family systems. Will examine the establishment of cooperative relationships with appropriate rural agencies

472 Women's Health Issues (3) (AY)

Overview of preventive measures promoting health through the life cycle with emphasis on normal developmental, physiological and social needs during pregnancy and the child-bearing period. Open to pre-nursing, nursing majors or interested health care providers.

PACIFIC ISLANDS STUDIES

Office: EKH 266, 974-7472, 974-7460

Coordinator:

Craig J. Severance, Ph.D.

Professors:

James O. Juvik, Ph.D.
Craig J. Severance, Ph.D.
Sonia Tinglin-Juvik, Ph.D.

Associate Professors:

David C. Purcell, Ph.D.
Miyoko Sugano, M.A.

The interdisciplinary Pacific Islands Studies Certificate Program is an adjunct to a student's academic major. Students will have an opportunity to deepen their knowledge of Pacific Islands environments, cultures and economy through a series of discipline based courses and a capstone seminar. Course work in the certificate program focuses on the Pacific as a complex region of island states and territories with common regional concerns and reviews the problems and prospects of Pacific Islands peoples in the contemporary world.

Note: This certificate program is under revision. Please see program coordinator for specific changes.

Certificate Requirements: 21 semester hours

1. **Required courses:** Anth 200b, Anth/Geog 435 Senior Seminar; two courses out of the following three: Anth 357, Geog 335, Hist 315; and one course from the following: Haws 175, a course on Pacific literature or Pacific art.
2. **Electives:** 6 semester hours of discipline based Pacific courses or internships with Pacific content subject to the approval of the Pacific Studies Faculty. Students may also take discipline based directed study from a participating Pacific Islands Studies faculty member. Discipline based courses that relate to Pacific Islands topics which allow the student to focus research papers on the Pacific may be approved for credit toward the certificate by a vote of participating faculty. Other appropriate courses are being developed and, when approved, will be listed in the class schedule.

PERFORMING ARTS

Office: PB8B7, 974-7479

Associate Professors:

Jacquelyn Pualani Johnson, M.A.
John S. Kusinski, Ph.D.

Assistant Professor:

Richard A. Lee, Ph.D.

Theatre Manager:

Larry Joseph, A.A.

The Performing Arts Department provides a broad undergraduate program in music, drama, and dance. UH Hilo music courses encompass the areas of musicology (history and literature), music theory and composition, applied music instruction (vocal and instrumental), music education, ethnomusicology, music synthesis and computer/MIDI applications, and a full range of performing ensembles open to all qualified students, regardless of major. The Drama component offers courses in acting, directing, costuming, stage makeup, and technical theatre; courses in dance include the fields of ballet, modern, and jazz dance, choreography, and dance history.

MUSIC (Mus)

The music curriculum offers courses which reflect traditional methodology as well as current trends in today's musical world. Focused performance capability and strong academic achievement are significant goals for all music majors. Students may choose areas of concentration in performance, theory and composition, musicology, ethnomusicology, or music education.

Music Major: 43 semester hours *plus* ensemble performance*

Option I: Performance

1. Music Theory: 16 credits (Mus 185/185L, 186/186L, 285/285L, 286L, 385).
2. Music History: 6 credits (Mus 365, 366)
3. Applied Music: 7 credits (Mus 135, 136, 235, 236, 335, 336), *and* a half-recital. Consultation with music faculty required before enrolling for applied music.
4. Class Piano: 2 credits (Mus 125, 126). Piano majors must substitute either Voice class I and II (Mus 123, 124) or advanced Applied Music (Mus 435, 436)
5. Upper Division Electives in Music Theory, Composition, Musicology, or Ethnomusicology: 12 credits (to be selected from MUS 349, 375, 462, 466, 470, 485, 487, 494).
6. Performing Ensembles: 6 semesters.*

Option II: Music Theory, Composition, Musicology, or Ethnomusicology

The requirements for the Music MajorCOption II are the same as those for Option I with the following exceptions:

1. Applied Music: 4 credits *only* (MUS 135, 136, 235, 236)
2. in lieu of MUS 335, 336, and the half-recital, students must either pursue Directed Studies (4 credits) *or* undertake an additional upper division music course (3 credits) from the selections listed above in Option I, #5.

NOTE: Because of the number of required lower-division courses, Music majors need to complete 41 upper-division credits to fulfill UH Hilo baccalaureate degree requirements. A maximum limit of 12 performing ensemble credits may be applied toward the upper-division total.

Music Education:

Music majors may apply for Initial Basic teaching certificates in Elementary or Secondary Education in the state of Hawai'i in collaboration with the UH Hilo Teacher Education program. Students pursuing Secondary Certification must complete additional music requirements in methods (MUS 123, 151, 152, 153, 155, 156), conducting (MUS 390, 391), and music education (MUS 337); these courses are not required of Elementary Education majors. See the UH Hilo Education Program descriptions for further details on admission and state Department of Education guidelines.

Minor: 15 semester hours *plus* ensemble performance

Required:

1. Music Theory: 8 credits (Mus 185/185L, 186/186L)
2. Music Literature: 3 credits (Mus 160)
3. Applied Music: 2 credits (Mus 135, 136)
4. Class Piano: 2 credits (Mus 125, 126) Pianists must substitute Voice Class I and II (Mus 123, 124)
5. Performing Ensembles: 4 semesters.

Certificate in Performing Arts: 24 semester hours

The Certificate in Performing Arts is designed to provide a strong background for students interested in pursuing careers in

music, dance and/or drama. Courses taken to satisfy General Education or Music major requirements may *also* be used to meet the requirements of the certificate.

1. Drama 170 and two of the following courses: Drama 321, 340, 350, 360, 430, 490. (9 semester hours)
2. Dance 150, 371, and 401. (8 semester hours)
3. Music 160 or 170 and 4 semester hours in ensemble courses, selected from Mus 102, 401, 402, 404, 406. (7 semester hours)

All prerequisites must be completed before students will be allowed to register for upper division courses. Repeatable courses may be counted only once toward fulfilling the requirements for the Certificate.

100 Performing Arts Convocation (1) (Y)

A forum for Performing Arts presentations, including lectures, student recitals, and other performances. Attendance at Performing Arts and selected community programs required. Scope and sequence changes every semester. Required once for applied music students in the 35/36 sequences. Recommended for all music majors.

102 University Chorus (2) (S)

Large ensemble singing of traditional choral literature. Fundamentals of voice production and musicianship. Public performance required. No audition required. May be repeated for credit.

123 Elementary Voice Class I (1) (Y)

Fundamentals of voice production applied to vocal literature at elementary level.

124 Elementary Voice Class II (1) (Y)

A continuation of Mus 123. Refinement of vocal skills; study and performance of vocal literature in English and other languages. Pre: Mus 123.

125 Class Piano I (1) (Y)

Basic principles of piano performance. Relevant problems in piano literature at elementary level. This course is designed for music majors (or intended music majors) only. Should be taken concurrently with Mus 185. Pre: Mus 180 or placement conference.

126 Class Piano II (1) (Y)

A continuation of Mus 125. Application of harmonic concepts and basic keyboard techniques. Expanding repertoire of pieces at the elementary level. Pre: Mus 125.

151 String Methods I (2) (IO)

Basic instruction in violin, viola, violincello, and double bass for students preparing to teach instrumental music. Pedagogy, materials, and performance techniques for string instruments.

152 String Methods II (2)

A continuation of Mus 151. Pre: Mus 151.

153 Woodwind Methods (2) (IO)

Basic instruction in woodwind instruments for students preparing to teach instrumental music. Pedagogy, materials, and performance techniques for woodwind instruments.

155 Percussion Methods (2) (IO)

Basic instruction in percussion instruments for students preparing to teach instrumental music. Pedagogy, materials, and performance techniques for percussion instruments.

156 Brass Methods (2) (IO)

Basic instruction in brass instruments for students preparing to teach instrumental music. Pedagogy, materials, and performance techniques for brass instruments.

160 Introduction to Music Literature (3) (Y)

Appreciation of western art music through discussion, listening and reading. Study of elements, textures, forms and style characteristics. No previous music knowledge required.

163 American Music and Popular Culture (3) (Y)

A survey of American musical styles of the 20th century, including rock, blues, jazz, country, Motown, R&B, and other folk idioms, as well as American art music. Emphasis will be on stylistic evolution, interactions, and social context. No previous musical knowledge is required.

165 Introduction to Jazz (3) (IO)

A survey of classic and modern jazz in a historical framework. Study of elements, trends, genres, forms and style characteristics. Appreciation of jazz through discussion, listening and reading. No previous musical knowledge is required.

170 Music in World Culture (3) (Y)

Music of the non-Western world. Cultures surveyed include Polynesia, the Philippines, Indonesia, Pan-Islam, India, China, Korea, and Japan. (Same as Anth 170)

175 Introduction to the Music of Polynesia (3) (AY)

A general survey of the traditional and acculturated music of eight major Polynesian island groups: Tonga, Samoa, New Zealand, Cook Islands, Society Islands, Marquesas Islands, Easter Island, and Hawai'i. Music is viewed as both an organization of sound and as a product of culture and people. (Same as Haws 175)

176 The History and Development of Hawaiian Music (3) (AY)

A general survey of the interrelationships of traditional and acculturated Hawaiian music. Vocal music genres to be discussed include: chant; Christian hymn singing; secular choral singing; male and female falsetto singing; *Chalangalang*; *Hapa Haole*; and contemporary. Instrumental music genres include: pre-European instrumental styles; slack key guitar; 'ukulele; and steel guitar. (Same as Haws 176)

180 Elementary Music Theory (3) (S)

Designed for non-music majors. Aural skills and musical notation: pitch, rhythm, tonality, and chord structure. First experiences at the piano also included.

185 Music Theory I (3) (Y)

Designed for music majors or minors or those with sufficient musical background. Basic concepts and materials of music. General awareness of musical styles, with concentration on 18th-century norms. Principles of tonality, harmony, 4-part writing. Connecting sound and notation through writing. Must be taken concurrently with Mus 185L. Should be taken concurrently with Mus 125. Pre: placement conference.

185L Music Theory I Laboratory (1) (Y)

Connecting sound and notation through analysis, aural dictation, and sight singing. Taken concurrently with Mus 185.

186 Music Theory II (3) (Y)

Emphasis on harmonic aspects of tonal music, including all diatonic triads, dominant 7th and secondary dominants. Small forms, increased application through analysis and writing. Must be taken concurrently with Mus 186L. Should be taken concurrently with Mus 126. Pre: Music 185 and Mus 185L.

186L Music Theory II Laboratory (1) (Y)

Increased application of aural skills through analysis, dictation, and sight-singing. Reinforces concepts presented in Mus 186. Taken concurrently with Mus 186. Pre: Mus 185 and 185L.

199 Directed Studies (1-3) (S)

Permission of instructor and statement of planned reading or research required.

225 Music Synthesis (3) (IO)

The use of computer-controlled synthesizers in musical composition, recording and performance. Music Instrument Digital Interface procedures and applications. Pre: Mus 126, 131C (Applied Music/Piano), or conference.

285 Music Theory III (3) (Y)

Wider awareness of musical styles; concentration on chromaticism of the 19th century. Diatonic 7th, N6, Aug6, altered dominants, chromatic mediant, 9th, 11th and 13th chords. Large formal designs and advanced melodic/harmonic developments. Examined through analysis and writing. Must be taken concurrently with Mus 285L. Pre: Mus 186 and 186L.

285L Music Theory III Laboratory (1) (Y)

Expanded concepts in aural dictation and sight-singing. Reinforces concepts presented in Mus 285. Taken concurrently with Mus 285. Pre: Mus 186 and 186L.

286L Music Theory IV Laboratory (1) (Y)

Expanded concepts in aural dictation and sight-singing. Pre: Mus 285 and 285L.

299 Directed Studies (1-3) (S)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

325 Arranging/Transcription (3) (IO)

The use of Macintosh computers and MIDI keyboards in the arrangement and transcription of several musical works for different media. Pre: Mus 186, 225, or consent of the instructor.

337 Music Education in the Secondary School (3) (AY)

Objectives, materials, procedures of music in secondary school. Supervised experience in public schools. Pre: Mus 186.

349 Orchestration (3) (AY)

Survey of instruments of the orchestra and band. Study of selected scores. Basic principles of scoring and transcribing for the orchestra or band. Two semester projects. Pre: Mus 186 or consent of instructor.

365-366 History of Western Music (3-3) Yr. (AY)

Development of Western music from its origins to the 20th century. Styles, schools, and composers. Pre: Mus 160, 186, or consent of instructor.

375 Japanese Music (3) (AY)

Traditional, contemporary, and Western-influenced music of Japan based upon historical survey and study of major genres of Japanese music. No previous musical knowledge is required. Pre: junior standing or consent of instructor. (Same as JpSt 375)

385 20th Century Composition Techniques (3) (AY)

Study of the major compositional techniques and esthetics of 20th century music, including parallelism, atonality, serialism, pandiatonicism, neo-classicism, indeterminacy, extended techniques, electronic music, neo-romanticism, and eclecticism. Examine important schools of composition, analysis of major works, and composition exercises. Pre: MUS 285 or consent.

390 Choral Conducting (2) (IO)

Basic conducting technique and its application to the directing of choral organizations. Includes score reading, lyric diction, rehearsal techniques, and interpretative problems. Concurrent enrollment in Mus 102 is required. Pre: Mus 186 or consent of instructor.

391 Instrumental Conducting (3) (IO)

Comprehensive instruction on techniques of conducting instrumental groups. Score reading, rehearsal techniques, and interpretative problems. Pre: Mus 186 or consent of instructor.

399 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

401 Vulcan Band (2) (S)

Rehearsals and performances for athletic events, pep rallies, and other similar events. Public performance required. May be repeated for credit. Pre: audition.

402 Wind Ensemble (2) (S)

Rehearsals and performances of wind/band literature. Public performance required. May be repeated for credit. Pre: audition, or consent of instructor.

403 Jazz Ensemble

See Chamber Ensemble, MUS 406K.

404 University Chamber Singers (2) (S)

Performance of choral literature from Renaissance to the present, including ethnic music of Hawai'i. Public performance required. May be repeated for credit. Pre: audition.

406(Alpha) Chamber Ensemble(s) (1) (S)

Rehearsals and performance of chamber music for small instrumental/vocal groups. **A: Japanese Ensemble; B: Collegium Musicum (Early Music Consort); C: Vocal Music; D: Keyboard Accompanying; E: Saxophone Quartet; F: Chamber Music; G: Brass Ensemble; H: String Ensemble; I: Woodwind Ensemble; J: Percussion Ensemble; K: Jazz Ensemble; L: New Music Ensemble.** Public performance required. May be repeated for credit. Pre: audition and consultation.

419 Music for Elementary Teachers (3) (AY)

Survey of practical methods and materials used in teaching basic musical concepts in the elementary classroom; emphasis on music fundamentals, creative activities, and comprehensive musicianship for elementary students; development of skills in singing and using classroom instruments. Pre: Mus 180 or placement test.

462 Choral Music (3) (AY)

Historical and stylistic study of choral literature from the Renaissance to the present. Pre: Mus 365 and 366, or concurrent enrollment in 366, or consent of instructor.

466 Music of the United States (3) (AY)

Historical study of music from the colonial period to the present. Pre: Mus 160, and 180.

470 Art Music of Asia (3) (AY)

Study of major genres of principal countries in a framework of aesthetics, history, organology and performance practices. Pre: Mus 160, junior standing, or consent of instructor.

485 Form and Analysis (3) (AY)

Structural analysis of music literature from various style periods, including standard form types and analytical techniques applicable to post-19th century music.

487 Counterpoint (3) (IO)

Contrapuntal procedures and techniques of the 16th (modal counterpoint) and 18th (tonal counterpoint) centuries. Pre: Mus 285.

494 (Alpha) Special Topics in Musicology (3) (Y)

Specialized focus on selected topics from one of the historical style periods, including composer biographies, genre studies, analytical studies, topics in the historical and sociological context of music, musicological research issues and methodologies, and/or bibliographic studies. A Medieval, B Renaissance, C Baroque, D Classical, E Romantic, F 20th Century. Pre: Mus 285, 365, and 366, or consent of instructor.

499 Directed Studies (1-3) (S)

Statement of planned reading or research required: Pre: senior standing and consent of instructor.

Applied Music

Instruction is given in individual lessons for music majors and minors. One (1) credit consists of one half-hour lesson per week for 13 weeks of the semester. Two (2) credits may be earned by taking either two half-hour lessons per week, or one (1) one-hour lesson per week.

For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration.

Applied Music fees are in addition to regular tuition. Students enrolled in Mus 135, 136, 235, 236, 335, 336, 435, 436 are required to participate in student recitals and juries.

135-136 First-Level Applied Music (Arr) (S)

For music majors or performers of considerable experience. Individual instruction given in voice, piano, wind instruments, and percussion.

235-236 Second-Level Applied Music (Arr) (S)

For music majors or performers of considerable experience. Continuation of Mus 135-136. Pre: Mus 136.

335-336 Third-Level Applied Music (Arr) (S)

For music majors or performers of considerable experience. Continuation of Mus 235-236. Pre: Mus 236.

435-436 Fourth-Level Applied Music (Arr) (S)

For music majors or performers of considerable experience. Continuation of Mus 335-336. Pre: Mus 336.

Drama (Dram)

170 Introduction to Theatre (3) (Y)

Theatre history and play analysis from the standpoint of production. Lab work in three aspects of play production: acting, directing, design.

221 Beginning Acting (3) (Y)

Individual exercises and group rehearsals with emphasis on voice, movement, relaxation. Performance of scenes.

231 Oral Interpretation of Literature (3) (AY)

Principles of interpretive reading. Textual analysis, training in individual and group performance techniques. Development, arrangement and performance of program. (Same as SpCo 231)

260 Basic Stagecraft (3) (AY)

Introduction to beginning concepts of design and construction of scenery for the stage. Overview of the development of scenography from Greek theatre to the modern proscenium stage. Study will include two- and three-dimensional scenery, properties, and finishing techniques.

264 Beginning Theatre Practicum (3) (S)

Supervised work and/or performance for the beginning student in the areas of acting, stagecraft/construction, lighting, sound, and costuming. Required work on a Theatre production to utilize learned skills. Pre: Dram 170 or consent of the instructor.

273 Radio Drama (3) (IO)

A survey and production course in Radio Drama with emphasis on the actual production of radio drama(s) for public broadcast. Pre: Drama 170, SpCo 260 or consent of instructor. (Same as SpCo 273)

318 Playwriting (3) (IO)

Basic course in writing for the stage. Development of theme, action, and characterization for the one-act play form. Pre: consent of instructor. (Same as Eng 318)

321 Acting Workshop (3) (Y)

Advanced study for actors who have completed Beginning Acting. Concentrated scene work, script analysis, character development, and style study. Comparative exercises in acting for the stage and the camera. Required public performance of workshop material. Pre: Dram 221 and consent of instructor.

340 Stage Makeup (3) (Y)

Studio work in design and application of stage makeup. Study and development of character, corrective, and three-dimensional makeup. Required work on major production. Pre: consent of instructor and Dram 170 or 221 or previous stage makeup experience.

350 Stage Costume (3) (IO)

Study of costume design, theory, and practice. Survey of historical and modern costume. Practical experience in design and construction including required work on major production. Pre: Dram 170 or 221, or consent of instructor.

360 Technical Theatre Workshop (3) (AY)

Study of stagecraft, lighting, and management areas comprising backstage technical support. Supervised work on major production. Required attendance at afternoon/evening rehearsals. May be repeated for a total of 6 semester hours. Pre: Dram 260.

364 Advanced Theatre Practicum (1-4) (S)

Supervised work and/or performance for the advanced student in one or more of the following areas: acting, stagecraft/construction, lighting, costuming, sound, makeup, publicity, arts administration, box office techniques. May be repeated for a total of 8 semester hours. Pre: Dram 264 or 340 or 350 and consent of the instructor.
Hrs/wk: Lectures 2 Lab Variable*

*Lab hours reflect variable credit(s):

- 1 credit=32 lab hrs./semester
- 2 credits=64 lab hrs./semester
- 3 credits=96 lab hrs./semester
- 4 credits=128 lab hrs./semester

421 Acting Troupe (3) (AY)

Rehearsal and performance of works from Western literature and ethnic non-Western sources, including contemporary drama of Hawai'i and the Pacific. Emphasis on ensemble performance. Refinement of individual skills and group interactions acquired in Dram 321. Public performance required. May be repeated for a total of 6 semester hours. Pre: Dram 221, 321, audition, and consent of the instructor.

430 Directing (3) (IO)

Basic practical course in how to direct a play. Students direct one-act plays or scenes from full length plays. Pre: Drama 170, 221, 260, or 264, and 321, and consent of instructor.

490 Lyric Theatre (3) (IO)

Extensive study of history, theory, and techniques that shaped the American Musical Theatre genre, with emphasis on major composers, choreographers, and performers. Lab work in singing, dancing, costuming, makeup, and technical requirements, leading to a final performance project. Pre: Dram 170, 221, 321 and consent of the instructor.

Dance (Danc)**150 Introduction to Dance (3) (AY)**

History, scope, and theory of human movement. Study of the correlation of dance, music, and visual expression. Not a performance course.

160 Ballet I (2) (Y)

Introduction to classical ballet. Movements, techniques and appreciation of ballet. Previous dance experience not required.

180 Jazz Dance I (2) (Y)

Introductory course in jazz dance style and techniques. May be repeated once for credit.

190 Modern Dance I (2) (Y)

Basic techniques of Modern Dance as an art form. May be repeated once for credit.

260 Ballet II (2) (Y)

Continuation of Ballet I. Movements, techniques, and appreciation of ballet. Emphasis on developing strength, flexibility, and control in classical balletic style. Pre: Danc 160.

280 Jazz Dance II (2) (AY)

A continuation of Jazz Dance I. May be repeated once for credit. Pre: Danc 180 or consent of instructor.

290 Modern Dance II (2) (Y)

Second level Modern Dance. Designed to develop physical flexibility, body control, and a more acute rhythmic sense. May be repeated once for credit. Pre: Danc 190 or consent of instructor.

371 Choreography (3) (Y)

An introduction to the basic techniques of creating dance. Public performance required. May be repeated once for credit. Pre: Danc 180 or 190, consent of instructor.

380 Jazz Dance III (2) (AY)

A continuation of Jazz Dance II. May be repeated once for credit. Pre: Danc 280 or consent of instructor.

401 Dance Ensemble (2) (Y)

Preparation and performance of techniques and repertoire at the advanced level. Public performance required. May be repeated for credit. Pre: audition.

PHILOSOPHY (Phil)

Office: EKH 214, 974-7479

Professors:

Ronald A. Amundson, Ph.D.
Hsueh-Li Cheng, Ph.D.
Barry Curtis, Ph.D.
Lawrence L. Heintz, Ph.D.

Philosophy addresses the fundamental issues of human life, including the nature of reality, the secret of beauty, the criteria for knowledge and truth, and the difference between right and wrong. Philosophy classes generally use the Socratic method, which encourages students to develop and express their own views on philosophical questions and to critically analyze and discuss the views of others. The study of philosophy builds critical thinking skills which are useful in any job or profession requiring logical reasoning and responsible decision making. The Department of Philosophy at UH Hilo offers the full range of courses approved by the American Philosophical Association for a bachelor's degree with a major in philosophy.

Major: 30 semester hours

Required:

1. Phil 209 or Phil 345.
2. Phil 200, 201, 230, 310, and 315.
3. Four additional courses in Philosophy, all of which must be at the upper division level, and include at least one course in Asian/Comparative Philosophy.

Minor: 15 semester hours in Philosophy, including at least nine semester hours at the 300-level or above, chosen from the following:

1. Phil 200 or 201
2. Phil 209 or Phil 345.
3. One of the following: Phil 230, 310, 390, or 391.
4. One of the following: Phil 220, 315, 321, or 330.
5. One course in Asian/Comparative Philosophy at the upper division level.

Western**100 Introduction to Western Philosophy (3) (S)**

Major philosophers, methods, and issues in Western philosophy. Discussion of such problems as our knowledge of reality, the freedom of the will, the relations between the mind and body, morality, ethics, the meaning of life, and the existence of God.

200 History of Ancient Philosophy (3) (Y)

Philosophy of the Pre-Socratics, Plato, Aristotle and Roman Thinkers.

201 History of Modern Philosophy (3) (Y)

From the Renaissance to the 19th century. Phil 200 recommended.

209 Reasoning (3) (Y)

Informal logic: Study of practical reasoning, argument, and the use and misuse of language. Emphasis on development of critical thinking skills.

220 Social Ethics (3) (Y)

Contemporary ethical issues, such as abortion, euthanasia, the death penalty, sexual equality, sexual integrity, discrimination and reverse discrimination, violence, pornography, ethnic injustice, and environmental and population control.

230 Belief, Knowledge and Truth (3) (Y)

The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search for knowledge.

299 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

310 Metaphysics (3) (Y)

Puzzling problems in Western thought, such as the nature of personal identity, the freedom of the will, time, and the relation between mind and body. Pre: previous work in philosophy.

315 Ethical Theory (3) (Y)

Classical and contemporary theories of right and good. Pre: previous work in philosophy.

320 Social and Political Philosophy (3) (AY)

Good and right applied to economic, political, and religious establishments; obligation, freedom of dissent, capital punishment, violence, rights, revolution, and war. Pre: previous work in philosophy; Phil 220 recommended.

321 War and Morality (3) (IO)

Can modern wars be just? Are there war crimes, crimes against humanity, crimes against the peace? Military necessity, reprisal, the military-industrial complex, the treatment of prisoners, non-combatants, collateral damage, deterrence theory; forbidden weapons: incendiaries, chemical/biological, nuclear. Pre: previous work in philosophy.

323 Professional Ethics (3) (IO)

Professional conduct is being questioned as never before. Lawyers, physicians, engineers, accountants, etc., are criticized for disregarding the rights of clients and the public interest. The course addresses the ethical problems of "the professions" in general and will focus on professions in business, law, and health care. Pre: previous course work in philosophy.

325 Philosophy of Law (3) (AY)

Problems and controversies in the nature of law and its bearing on human conduct. Topics: legal and moral obligation, obedience and respect, enforcement of morality, punishment and responsibility, justification of practices such as plea bargaining, bail, prosecutorial discretion, etc. Pre: previous work in philosophy.

330 Aesthetics (3) (IO)

The aesthetic object, form in art, representation, meaning in art, and claims of knowledge in art. Pre: previous work in philosophy and in art or music.

340 Philosophy of Religion (3) (AY)

Philosophical problems in religious beliefs and religious knowledge. The existence of God, immorality, the problem of evil. Pre: previous work in philosophy or Religious Studies. (Same as Rels 340)

345 Symbolic Logic (3) (Y)

Techniques of symbolic logic, including propositional logic, predicate logic and the logic of relations.

350 Philosophy of Education (3) (IO)

The concepts central to the process of educating, learning, knowing, understanding, and the criteria of evaluation. Pre: previous work in philosophy or education.

360 Existentialism (3) (IO)

The themes which recur in the works of existential philosophers from the 19th century to the present. Pre: junior standing or consent of instructor. (Same as Rels 360)

380 Recent British and American Philosophy (3) (IO)

Recent themes in Anglo-American thought, including analytic and ordinary language philosophy. Pre: previous work in philosophy.

390 History and Philosophy of Science (3) (AY)

Natural science as a knowledge-seeking activity. Major episodes in the history of the physical and biological sciences; philosophical understanding of scientific observation, theory, and revolutionary change. Pre: previous work in philosophy or consent of instructor.

391 Philosophy of the Social Sciences (3) (AY)

The nature of theory and explanation in such social sciences as sociology, psychology, and anthropology; scientific methodology; the objectivity and social responsibility of the social scientist. Pre: previous work in philosophy of consent of instructor.

392 Biology and Philosophy (3) (AY)

Philosophical examination of the implications of modern biology for how we understand ourselves and our relations to the natural world. Evolutionary, genetic, developmental, and ecological topics will be discussed. Pre: previous work in Philosophy and Biology, or consent of instructor. (Same as Biol 392)

399 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

410 Language and Meaning (3) (IO)

Modern and historical theories of meaning, reference, and the relations between language and knowledge of the world. Also, ordinary language, ideal languages, and current developments in psychology and linguistics. Pre: Previous work in philosophy and linguistics; or consent of instructor. Phil 230 is recommended. (Same as Ling 410)

420 Philosophy of Marxism (3) (IO)

The basic Marxian revolutionary ideas in the writings of Marx and Engels, and their revisions by Plekhanov, Lenin, Bernstein, Luxemburg, Bukharin, Trotsky, and Stalin. Pre: Phil 201, 220 or 320 or advanced work in political science.

494 Special Topics in Philosophy (1-3) (IO)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. Pre: senior standing and consent of instructor.

497 Seminar in Philosophy (3) (IO)

For serious students of philosophy. The topics vary and the course may thus be repeated for credit.

499 Directed Studies (1-3) (IO)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

Asian and Comparative

101 Introduction to Eastern Philosophy (3) (S)

Philosophical teachings of Hinduism, Buddhism, Jainism, Confucianism, Taoism, Neo-Confucianism, and Shintoism.

300 History of Indian Philosophy (3) (IO)

The historic Indian schools of thought, Brahmanism, Jain, Carvaka, Buddhist, Samkyha, Yoga, Nayaya, Vaisheskika, Mimamsa, and Vedanta. The main philosophers and thinkers of India including Gandhi, Radhakrishnan, and Tagore. Pre: previous work in philosophy or religious studies is recommended. (Same as Rels 303)

301 History of Chinese Philosophy (3) (Y)

History of the Confucian, Taoist, and Buddhist philosophies and their interaction in China. The pivotal thinkers including Mao. Pre: previous work in philosophy or religious studies is recommended. (Same as Rels 304)

302 History of Buddhist Philosophy (3) (AY)

History of Buddhist philosophy and its cultural influence and intellectual development in Asia and Hawai'i. Pre: previous work in philosophy or religious studies is recommended. (Same as Rels 302)

430 Philosophy of Zen (3) (AY)

Chief philosophical teachings of Zen, its methods and cultural influences. Comparative study of Zen and Western thought. Pre: previous work in philosophy or religious studies, or consent of instructor. Phil 302 is recommended. (Same as JpSt 430, Rels 430)

435 Philosophy of Tao (3) (IO)

Philosophical ideas of Lao Tzu, Chuang Tzu, and the Neo-Taoists, and their influences upon the lives of the Chinese and Japanese peoples. Comparative study of Taoist and Western philosophy. Pre: previous work in philosophy or religious studies, or consent of instructor. Pre: Phil 301 is recommended. (Same as Rels 435)

450 Mahayana Buddhist Philosophy (3) (Y)

Important tenets and major schools of Mahayana Buddhist philosophy in India, China, Japan, Tibet, and Hawai'i. Comparative study of Mahayana and Western philosophy. Pre: previous work in philosophy, religious studies, or consent of instructor. Phil 302 is recommended. (Same as JpSt 450, Rels 450)

PHYSICS (Phys)

Office: LS2, 974-7383

Professors:

Robert A. Fox, Ph.D.
Suk R. Hwang, M.S.

The Physics degree program allows the student a wide degree of latitude in preparation for chosen career aspirations. Candidates for the degree of Bachelor of Arts in Physics may elect to pursue study in either a traditional curriculum with a variety of courses in classical and modern physics, or may choose a more specialized curriculum suitable for careers in such topics as astronomy, geology/geophysics, mathematics, or computer science. Modern physics and astronomy laboratory equipment is used in all student training; the use of computers is emphasized throughout the advanced curriculum. Advanced students carry out a senior undergraduate thesis or research project under the supervision of one of the physics/astronomy faculty.

The Department operates a Space Science Center in support of academic physics and astronomy studies. The Center maintains a cache of modern computers and software packages for student use in conjunction with their coursework and in support of their senior thesis/research projects. Physics degree candidates are eligible for financial support under the Space Grant Fellowship and JOVE Assistantship programs; see the Astronomy section of this catalog for details. During the summer, the department also conducts the Hawai'i Student Science Training Program (Hawai'i-SSTP) in calculus-physics for high-ability high school students. See Special Programs for details.

Major: 37 semester hours of physics

Required:

1. Phys 170-170L, 171-171L, 270, 271.

2. Math 205-205L, 206-206L, 231, 300, and two additional elective mathematics courses selected with the approval of the Department.
3. Phys 281, 330, 331, 430-431, 432-433, 495A-495B.
4. Twelve semester hours selected from the Natural Sciences with the approval of the Department. Students are strongly encouraged to consult with their faculty advisor regarding choices of elective courses appropriate to their career aspirations. A student enrolled as a physics major, or who is working toward a minor in physics, having successfully completed Physics 170 and 170L, automatically fulfills one (Physics) of the three disciplines under the Natural Sciences category of the General Education Area requirements.

Minor: 19 semester hours of physics

Required: Phys 170-170L, 171-171L, 270, and six additional semester hours of physics in courses above Phys 270.

106 College Physics I (3) (Y)

Basic principles of physics designed for students in non-physical science and education majors. Covers mechanics, waves and heat. Pre: three years of high school math or equivalent accompanied by required lab, Phys 170L.

107 College Physics II (3) (Y)

Basic principles of physics designed for students in non-physical science and education majors. Covers electricity and magnetism, optics and modern physics. Pre: Physics 106, 170L, accompanied by required lab, Phys 171L.

115 Physics for the Liberal Arts (3) (Y)

Designed for non-science majors. Basic physical concepts through student's active participation and practical experience in a manner that is simple and intuitive.

120 Weather and Climate of Hawai'i (3) (Y)

For non-science majors and prospective science teachers. Basic meteorology, sun-earth-ocean-atmosphere interrelationships, weather types, seasonal changes, trade winds, clouds, rainfall, with examples drawn from the local weather and climate. (Same as Geog 120)

170 General Physics I Particles and Waves (4) (Y)

Introductory physics designed for students majoring in physical sciences or engineering. Covers mechanics of particles; rigid bodies and fluids; wave motion; thermodynamics and kinetic theory. Pre: Math 205-205L (or concurrent). Accompanied by required lab, Phys 170L.

170L General Physics Laboratory I (1) (1 3-hr. lab) (Y)

A required laboratory supplement for Physics 106 and 170; covers basic principles of experimentation and physical measurement. Pre: registration in Phys 106 or 170.

171 General Physics II—Electricity and Magnetism (4) (Y)

Introductory physics designed for students majoring in physical sciences or engineering. Covers electrostatics, conductors and current, dielectrics, magnetic fields and induction, Maxwell's equations and basic optics. Pre: Phys 170, Phys 170L, Math 206-206L (or concurrent). Accompanied by required lab, Phys 171L.

171L General Physics Laboratory II (1) (1 3-hr. lab) (Y)

A required laboratory supplement for Physics 107 and 171; covers basic principles of experimentation and physical measurement. Pre: Physics 106 or 170, 170L, registration in Phys 107 or 171.

260 Computational Physics and Astronomy (3) (Y)

Computational techniques in physics and astronomy, with an emphasis on the use of computer engineering and scientific software. Topics covered include approximation techniques, numerical modeling of physical systems, solutions of non-linear and inverse problems, Fourier analysis and filtering, and elementary statistical and numerical concepts. Pre: Phys 170/171, Math 205/206 (same as Astr 260)

270 General Physics III—Introduction to Modern Physics (3) (Y)

Survey of contemporary physical theory and applications: special relativity; quantum physics: atomic structure and spectra, molecular and solid-state physics; nuclear structure and reactions; elementary particles and fundamental forces. Pre: Phys 170-171 and credit or registration in Math 231.

271 General Physics IV—Classical Mechanics (3) (Y)

The classical kinematics and dynamics of constant, time-dependent and position-dependent forces. Particle, rigid body and fluid dynamics; central force motion; normal modes of vibrations; introduction to Lagrangian and Hamiltonian formalism. Pre: Phys 170-171 and credit or registration in Math 300.

281 Introduction to Thermodynamics (3) (AY)

Thermodynamic properties of matter; equations of state; heat transfer; classical statistical treatment of kinetic theory. Pre: Phys 171.

299 Directed Studies (1-3)

Permission of the instructor and a statement of planned reading or research is required. Pre: sophomore standing.

330 Electromagnetism (3) (AY)

Electrostatics; electric and magnetic properties of materials; Maxwell's equations of electromagnetism; electrodynamics; electromagnetic waves and boundary value problems. Pre: Phys 171, Math 300.

331 Optics (3) (AY)

Modern optics and the design of optical instruments: interactions of electromagnetic radiation with matter; paraxial and Seidel optical theory; design of simple optical instruments; aberrations and stops; design of telescopes, spectrographs, and interferometers; photon optics; Fourier optics. Pre: Phys 270, Math 300.

399 Directed Studies (1-3)

Permission of the instructor and a statement of planned reading or research is required. Pre: junior standing.

430-431 Modern Physics (3-3) Yr. (AY)

Introductory quantum mechanics and its applications to nuclear, atomic, and particle physics. Quantum mechanical treatment of molecular structure and spectra, and the thermal properties of matter. Pre: Phys 170-171, 270, 281.

432-433 Senior Laboratory/Thesis Project (2-2) Yr. (Y)

Individual research projects conducted in the college laboratory, library, or observatory; or at an external research facility; under the direct guidance of a member of the physics and astronomy faculty or an affiliated faculty member. Students must propose and complete a research project, and present a final report to the department. Permission of the department is required for registration (same as Astr 432-433).

494 Special Topics in Advanced Physics (3) (IO)

Detailed study of selected topics in advanced physics, topic to be chosen by instructor. Course content will vary; the course may be repeated for credit, provided a different topic is studied. Possible topics include: solid-state physics; Lagrangian and Hamiltonian dynamics, advanced thermodynamics or quantum mechanics. Pre: consent of instructor.

495A-495B Seminar (1-1) Yr. (S)

Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. The first semester (495A) is taken CR/NC; in the second semester (495B), students are required to present a seminar for a letter grade. Pre: senior standing or consent of instructor. (Same as Astr 495A-495B, Chem 495A-495B, Geol 495A-495B and Math 495A-495B)

499 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: senior standing.

POLITICAL SCIENCE (PoIS)

Office: EKH 214A, 974-7460

Professor:

A. Didrick Castberg, Ph.D.
Phillip A. Taylor, Ph.D.

Assistant Professors:

Regina Titunik, Ph.D.
Enbao Wang, Ph.D.
Robert P. Watson, Ph.D.

The Political Science program at the College of Arts and Sciences is designed to provide students with exposure to a broad range of topics within contemporary political science. All the major sub-fields in political science—American Politics, Comparative Politics, International Relations, Political Theory, Public Administration and Public Law—are offered in the major. Political science majors most often pursue careers in law, government, interest groups and (with supplementary coursework) journalism, teaching and business. Students majoring in other fields where they can anticipate interacting with government officials (for example in business) may benefit from the minor in political science. Certain outstanding political science majors will be invited by the political science faculty to write a senior thesis, a research effort which will be assigned and guided by an individual faculty member.

Major: 36 semester hours**Required courses:**

1. PoIS 101 Intro to American Politics
PoIS 220 Intro to Legal Systems
PoIS 242 Intro to International Relations
PoIS 251 Intro to Comparative Politics
PoIS 301 Modern Political Ideologies
PoIS 380 Methods of Research
2. At least one 400-level seminar course (preferably in an area or sub-field designated by the student as their emphasis or area of concentration). Students must complete at least one course in the area/sub-field of the particular seminar course as a pre-requisite prior to enrolling in the seminar course.
3. 15 credits of upper-division (300-level or above) course electives.

Minor: 21 semester hours**Required courses:**

1. PoIS 101 Intro to American Politics
2. Any three courses from the list of Political Science core courses (excluding PoIS 101 & 380)
PoIS 220 Intro to Legal Systems
PoIS 242 Intro to International Relations
PoIS 251 Intro to Comparative Politics
PoIS 301 Modern Political Ideologies
3. Three upper-division (300-level and above) courses

101 Introduction to American Politics (3) (S)

Organization and functioning of the American political system at the national level.

220 Introduction to Legal Systems (3) (Y)

The legal system of the U.S. State and federal courts, judges, attorneys, and law enforcement personnel; civil and criminal law and procedure.

231 Politics of Hawai'i (3) (IO)

Hawai'i's political culture, leadership patterns and recruitment, voter participation in politics, role of institutions, voting analysis, local political parties, and interest groups.

232 Politics of Race and Gender (3) (Y)

A survey of the historic, legal, political, and social forces shaping society's construction of race, ethnicity, and gender; notions of power and the political significance of race and gender are explored.

242 Introduction to International Relations (3) (Y)

The theory and substance of international politics, with emphasis on the international behavior of nations. Topics include war, regional integration, the United Nations, and the gap between rich and poor nations.

251 Introduction to Comparative Government (3) (AY)

Contemporary approaches to comparative government, and comparative analysis of selected national government.

299 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: sophomore standing and consent of instructor.

300 History of Political Thought: Ancient to Modern (3) (Y)

Political thought from ancient political philosophy to the advent of modern liberal democracy. Major thinkers include Plato, Aristotle, Machiavelli, Hobbes and Locke.

301 Modern Political Ideologies (3) (Y)

Liberalism and its ideological rivals: conservatism, communism and fascism. Precursors and exponents of these ideologies including Burke, Marx and Nietzsche.

305 Organizational Theory and Analysis (3) (AY)

Contemporary theories and techniques used in the analysis of organizations. Designed for students intending careers in public administration or the human services. Pre: junior standing or consent of instructor. (Same as Soc 305)

321 Constitutional Law (3) (AY)

Civil rights and civil liberties—the relationship between the individual and the government in such matters as freedom of expression, freedom of the press, religious freedom, the rights of the accused, freedom from discrimination, and the right of political participation. (formerly PolS 421)

322 Criminal Justice (3) (Y)

An examination of the criminal justice system, its structure and its function, with emphasis on the rights of the accused as exemplified in appellate court decisions. Pre: PolS 220 or consent of instructor. (formerly PolS 422)

324 Crime and Delinquency (3) (IO)

Crime and delinquency; types of adult and juvenile offenders; theories of crime and delinquency; police, courts, prisons, probation, and parole in relation to criminal and delinquent behavior. Pre: Soc 100 or consent of instructor (Same as 324)

330 Public Policy Issues (3) (Y)

National problems and those specifically affecting certain segments of the population; standards for judging proposed or actual solutions to these problems. (formerly PolS 230)

331 Presidency and Congress (3) (AY)

An examination of the institutions of the Presidency and the Congress and an analysis of the history, major office holders, processes, and functions of these American institutions.

335 Environmental Politics and Policy (3) (AY)

An examination of the major environmental and natural resource problems facing society today. Topics covered will include air and water pollution, energy development, and land use. (formerly PolS 435)

336 Political Anthropology (3) (AY)

A cross-cultural examination of political systems, political competition and dispute settlement. Consideration of political figures and political action in pre-state societies, early and modern states. Pre: Anth 100 and PolS 101 or consent of instructor. (Same as Anth 336)

340 U.S. Foreign Policy (3) (Y)

The policy-making process with special attention to the role of the President, the Congress, military, organized lobbies, and the public. Pre: PolS 101 or consent of instructor. (formerly PolS 440)

351 Politics of China (3) (AY)

Various aspects of contemporary Chinese politics in terms of elite patterns, institutional roles, and the responses by the masses. Areas to be covered include: Mao's ideology, shifts in development strategy, impact of the Cultural Revolution, and changes and reform under Deng Xiaoping. Pre: PolS 255 or consent of instructor.

353 Politics of Japan (3) (Y)

Aspects of Japanese politics, emphasizing the post-1945 period. Topics include political development and change, the political economy of Japan, major political institutions and organizations, policy-making processes, and controversial political issues.

360 Public Administration (3) (Y)

Public administration as a major component in the American political process and of public policy making and the crucial role administrators play in that process.

380 Methods of Research (3) (Y)

The logic and approaches used by social scientists; concept formation, design of research projects, choice of techniques, and interpretation of results. (Same as Soc 380)

391 Internship (3-12) (S)

Application of knowledge and skills in a public, private, or government agency/setting. May be taken for a total of 12 credits, only six of which can apply to the Sociology major or three to the minor, and a total of 15 credits of PolS/Soc 391 and PolS 481 may be applied to the PolS major. Pre: consent of instructor, preapproved placement, statement of learning objectives, and completed internship contract. (same as Soc 391)

399 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

400S Seminar in Contemporary Political Thought (3) (AY)

Political thought from early 20th century existentialism to contemporary postmodernism, feminism and conservatism. Pre: PolS 300 or 301 or 380 or consent of instructor.

420S Seminar in Law (3) (AY)

Research seminar on selected problems and issues in the study of public law. May include problems and issues at the local, state, or international level. Pre: PolS 321 and 380, or consent of instructor.

430S Seminar in American Politics (3) (AY)

An in-depth examination of major issues and problems in American government and politics, specifically campaigns and elections, public opinion, the media, and political parties. Pre: PolS 101, 380 or consent of instructor.

440S Seminar in International Relations (3) (AY)

Integration and disintegration in contemporary international relations. Major topics include nonstate actors, economic interdependence, North-South relations, nationalism and warfare. Pre: PolS 340 and PolS 380 or consent of instructor (WI).

450S Seminar in Comparative Politics (3) (AY)

Approaches and issues in Comparative Politics. Major theoretical paradigms and substantive topics including political culture, state formation, political parties, ethnic groups, political development and revolution. Pre: PolS 380 and PolS 351 or 353.

460S Seminar in Administrative Practices (3) (AY)

An applied research-oriented examination of the managerial practices of government agencies with particular attention to budgeting and financial administration, personnel issues, administrative law, executive leadership, and ethics. Efforts to reform bureaucracy including privatization, cost-benefit analysis, and accountability are analyzed.

481 Government Internship (CR/NC only) (3-15) (S)

Juniors and seniors may apply for an internship with the Hawai'i County Council or, in the Spring, with the Hawai'i State Legislature. Legislative interns receive 15 semester hours of credit and a stipend. May be repeated once for credit, but no more than 15 credits of PolS 481 and/or PolS/Soc 391 shall apply to the major. Pre: consent of instructor.

490 Senior Thesis (3) (S)

Individual research in problems of special interest. Pre: consent of instructor.

494 Special Topics in Political Science (1-3) (AY)

Advanced topics chosen by the instructor. The course content will vary. It may be repeated for credit, provided that a different topic is studied. The letter suffix indicates which of the major Political Science block requirements the course fulfills: (494A) Block I, (494B) Block II, (494C) Block III, (494D) Block IV, (494E) Block V, (494F) Block VI, (494G) Block VII. Pre: senior standing and consent of instructor.

499 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

PSYCHOLOGY (Psy)

Office: EKH 214A, 974-7460

Professors:

Susan G. Brown, Ph.D.

Paul W. Dixon, Ph.D.

Jerry L. Johnson, Ph.D.

Associate Professor:

William R. Higa, Ph.D.

Assistant Professors:

Vladimir Skorikov, Ph.D.

Debra J. Vandervoort, Ph.D.

Instructor:

Becky J. Thurston, M.A.

Any course applied to the Psychology major must be passed with a grade of C- or better.

Major: 35 semester hours

Core: (14 semester hours): 100, 213, 214 and 3 semester hours from 311, 312 or 313.

Block 1 (6 semester hours): 320, 321, 322, 323, 324, 325, 350, 360, 370, 370L, 380, 394A, 428, 428L, 450, 451, 494A

Block 2 (6 semester hours): 314, 314L, 315, 319, 330, 333, 335, 335L, 394B, 412, 430, 430L, 432, 432L, 494B

Block 3 (3 semester hours): 340, 341, 345, 346, 399, 499

Block 4 (3 semester hours): any course at the 300-level, except 399

Block 5 (3 semester hours): any course at the 400-level, except 499

100 Survey of Psychology (3) (S)

Principles of human behavior, individual differences, motivation, emotion, perception, learning. This introductory course provides a general survey of the entire field of psychology and serves as the prerequisite for all upper-division psychology courses.

199 Directed Studies (1-3) (S)

Permission of instructor and statement of planned reading or research required.

213 Statistical Techniques (4) (S)

Frequency distributions; graphic methods; central tendency and variability; correlation and regression; inferential statistics; non-parametric statistics. Pre: two years of high school algebra or equivalent.

214 Research Methodology (4) (S)

Methods of scientific observation, nature of experiments, the use of quasi-experimental designs, control group experimental designs, and single-subject experimental designs. Potentials and problems in research and clinical uses of these designs. Ethical considerations involved in conducting research. Pre: Psy 100, 213.

299 Directed Studies (1-3) (S)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

311 Behavioral Assessment (3) (AY)

Overview of behavioral assessment techniques commonly used to measure overt motor behavior, physiological-emotional behavior, and cognitive-verbal behavior. Pre: Psy 100, 213, 214.

312 Evaluation Research (3) (AY)

The application of research methods in the planning, monitoring and evaluation of social programs. Needs assessment, program monitoring impact assessment and efficiency analysis will be surveyed. Pre: Psy 100, 213, 214.

313 Testing and Measurements (3) (Y)

Principles, concepts, and procedures of psychological testing, including construction, validation, interpretation, and use of tests in intellectual and personality assessment. Pre: Psy 100, 213.

314 Learning and Motivation (3) (AY)

Major conditions influencing learning and forgetting; role of practice, reward, motivation, drive and emotion; theoretical interpretations of learning and motivation. Pre: Psy 100, 213, 214.

314L Learning and Motivation Laboratory (1) (IO)

Laboratory to accompany Psy 314.

315 Sensation and Perception (3) (Y)

Psychophysics, vision, audition, taste, smell, theories of perception. Pre: Psy 100, 213, 214.

319 Experimental Psychology (3) (Y)

Original experiments with emphasis upon laboratory techniques. Control of variables, apparatus design, statistics in research. Pre: Psy 100, 213, 214.

320 Developmental Psychology (3) (S)

Emotional, mental, physical, social development from infancy to adulthood; interest and abilities at different age levels. Pre: Psy 100.

321 Psychology of Personality (3) (S)

Scientific study of personality through examination of major theoretical approaches: personality functioning, development, and change; assessment and research strategies; empirical data on central concepts and social-cultural determinants. Pre: Psy 100.

322 Social Psychology (3) (Y)

Interpersonal relations, social attitudes; group dynamics; intergroup relations, class and cultural influences. Pre: Psy 100.

323 Community Psychology (3) (IO)

Community factors such as urbanization, social service programs, and schools as they affect the psychological well-being of individuals. Social system intervention techniques to better the fit between individuals and environments. Pre: Psy 100.

324 Abnormal Psychology (3) (S)

Nature, causes and treatments of abnormality; neurotic, psychotic, social, organic brain, intellectual, and developmental disorders. Pre: Psy 100.

325 Psychology of Women (3) (IO)

Issues and topics relevant to the psychological development and functioning of women including sex differences in abilities and behavior, achievement motivation, work, sexuality, pregnancy, child-birth and motherhood, mental health and domestic violence. Pre: Psy 100.

330 History of Psychology (3) (AY)

Historical origins and development of contemporary psychology. Pre: 9 semester hours in psychology.

333 Psycholinguistics (3) (Y)

Theory and method in the investigation of the relationship between language and cognition. Pre: Psy 100. (Same as Ling 333)

335 Animal Psychology (3) (AY)

Biological, ecological, social and learned bases of animal behavior based on laboratory and field investigations. Pre: Psy 100, 213, and 214, or consent of instructor.

335L Animal Psychology Laboratory (1) (AY)

Laboratory to accompany Psy 335.

340 Practicum in Psychology: Campus (3) (IO)

Supervised experience in counseling, instructional, and tutorial programs on the college campus. Pre: Psy 100 and consent of instructor.

341 Advanced Practicum in Psychology: Campus (3) (IO)

Continuation of Psy 340; supervised experience in counseling, instructional, and tutorial programs on the college campus. Pre: Psy 100 and consent of instructor.

345 Practicum in Psychology: Field (3) (S)

Supervised experience in human service, mental health, and other community agencies in the local community. Pre: Psy 100 and consent of instructor

Advanced Practicum in Psychology: Field (3) (Y)

Continuation of Psy 345; supervised experience in human service, mental health, and other community agencies in the local community. Pre: Psy 100 and consent of instructor.

350 Cognitive Psychology (3) (IO)

Theories, assumptions, empirical findings, and applications of cognitive psychology. Topics include memory, inference, prediction, and mental imagery. Pre: Psy 100.

360 Cross-Cultural Psychology (3) (Y)

Application of psychological methodology and theories to the study of behavior in selected cultures, with a focus on Polynesia. Topics to include child-rearing and socialization, cognition, personality, and social behavior patterns. Pre: Psy 100 and upper division standing.

370 Sport Psychology (3) (Y)

Survey of methods and findings in the application of psychological principles to sport. Topics include arousal and anxiety, cognitive processes, team performance, coaching behavior and techniques to maximize sports performance. Pre: Psy 100.

370L Sport Psychology Laboratory (1) (Y)

Laboratory to accompany Psy 370.

380 Health Psychology (3) (Y)

Psychosocial factors in physical health, illness, and the health care system. Topics include stress and coping, personality and social factors affecting health, adaptation to chronic illness, death and dying, patient-practitioner relationships, the institutional context, and health promotion. Pre: Psy 100.

394 Special Topics in Psychology (1-3) (Y)

Intermediate-level topics chosen by the instructor, with course content varying with each offering: (A) applicable to Block 1 of major requirements, (B) applicable to Block 2 of major requirements. May be repeated for credit, provided that a different topic is studied. Pre: junior standing or consent of instructor.

399 Directed Studies (1-3) (S)

Statement of planned reading required. Pre: consent of instructor.

412 Psychology of Individual Differences (3) (IO)

Theory, measurement, and research on individual and group differences in intelligence, aptitude, achievement, personality, and psychopathology. Pre: Psy 100, 213, 313.

428 Social Development of Children (3) (AY)

The socialization process and acquisition of social behavior. Experiences in laboratory and preschool settings with young children. Pre: Psy 100, 213, 214, 320, 322.

428L Social Development of Children Laboratory (1) (IO)

Laboratory to accompany Psy 428.

430 Physiological Psychology (3) (AY)

Relationship between physiology and behavior. Pre: Psy 100 and consent of instructor.

430L Physiological Psychology Laboratory (1) (AY)

Laboratory to accompany Psy 430.

432 Psychology of Motivation (3) (Y)

Theories of arousal and activation, incentive and reinforcement, and behavior suppression. Pre: Psy 100 and consent of instructor.

432L Psychology of Motivation Lab (1) (IO)

Laboratory to accompany Psy 432.

450 Child Behavior Therapy (3) (IO)

Theory, research, and practice in behavior therapy applied to child disorders covering treatment applications of reinforcement, extinction, punishment, and modeling in the natural environment. Pre: Psy 100 and 320 or 324.

451 Adult Behavior Therapy (3) (IO)

Theory, research, and practice in behavior therapy applied to adult disorders, covering treatment applications of desensitization, aversion therapy, biofeedback, self-control and cognitive processes. Pre: Psy 100 and 321 or 324.

494 Special Topics in Psychology (1-3) (Y)

Advanced-level topic chosen by the instructor, with course content varying with each offering: (A) offering applicable to Block 1 of major requirements, (B) offering applicable to Block 2 of major requirements. May be repeated for credit, provided that a different topic is studied. Pre: senior standing or consent of instructor.

499 Directed Studies (1-3)

Statement of planned research required. Pre: consent of instructor.

RELIGIOUS STUDIES (Rels)

Office: EKH 231, 974-7482

Professors:

Don Aanavi, Ph.D.
Hsueh-Li Cheng, Ph.D.
Sandra Wagner-Wright, Ph.D.

Associate Professor:

Christopher Reichel, Ph.D.

Assistant Professor:

Douglas Mikkelson, Ph.D.

Religious Studies is an interdisciplinary program leading to a B.A. degree under the Liberal Studies Program, administered by the Religious Studies Committee. Its interdisciplinary scope offers students in Hawai'i insights on religious phenomena both within particular historical-cultural traditions and across cultural boundaries. Religious Studies provides an integration of scholarship relevant to the field and in the development of methodologies appropriate to the history of religion to the present. It is an invaluable program in many disciplines including anthropology, art history, business, education, history, medicine, philosophy, sociology, and comparative studies.

Major: 33 semester hours

Required:

1. **Methodology** (3 hrs.)
Rels 300
2. **History of Religions** (6 hrs.)
Rels 302, 303, 304, 315, 330, 343, 344, 370, 391

3. **Philosophy and Phenomenology of Religion** (6 hrs.)
Rels 340, 360, 400, 410, 430, 435, 450

4. **Religion in Culture and Society** (6 hrs.)
Rels 200, 201, 250, 301, 322, 355, 375, 385, 390, 485, 495

5. **12 hrs. Upper Division Courses listed below:**

152 Asian Religions (3) (Y)

Hinduism, Buddhism, Confucianism, Taoism and Shinto

153 Western Religions (3) (Y)

Zoroastrianism, Judaism, Christianity and Islam

200 Old Testament/Hebrew Bible (3) (IO)

The literature of the Old Testament/Hebrew Bible with reference to its historical and cultural background.

201 New Testament (3) (IO)

The literature of the New Testament with reference to its historical and cultural background.

250 Religions of Hawai'i (3) (IO)

Introduction to local varieties of religion. Course includes field-based component, visiting religious institutions. **STUDENTS MUST BE WILLING TO TAKE SUNDAY MORNINGS FOR VISITATIONS.**

300 The Study of Religion (3) (Y)

The ways in which religion is studied. Definitions, functions, methodologies and relationships to other academic disciplines.

301 The Bible as Literature (3) (IO)

Selected books of the Old and New Testaments, examined with respect to their composition, form, and literary merit. Pre: Eng 100/ESL 100 or consent of instructor. (Same as Eng 301)

302 History of Buddhist Philosophy (3) (AY)

History of Buddhist philosophy and its cultural influence and intellectual development in Asia and Hawaii. Pre: Rels 300 or consent of instructor. (Same as Phil 302)

303 History of Indian Philosophy (3) (AY)

The historic Indian schools of thought, Brahmanism, Jain, Carvaka, Buddhist, Samkyha, Yoga, Nayaya, Vaisheskika, Mimamsa, and Vedanta. The main philosophers and thinkers of India including Gandhi, Radhakrishnan, and Tagore. Pre: previous work in philosophy or religious studies is recommended. (Same as Phil 300)

304 History of Chinese Philosophy (3) (AY)

History of the Confucian, Taoist, and Buddhist philosophies and their interaction in China. The pivotal thinkers including Mao. Pre: previous work in philosophy or religious studies is recommended. (Same as Phil 301)

315 East Asian Religions (3) (AY)

The development of Buddhism, Confucianism, Folk Religions, Shinto and Taoism in China, Japan and Korea. Junior standing or consent of instructor required. (Same as JpSt 315)

322 Comparative Religion (3) (AY)

Anthropological approach to comparative religions: comparative structural and functional analysis of religious phenomena. Theories of religion and magic. (Same as Anth 322)

330 Religion in America (3) (AY)

A historical and thematic study of the growth of religion in America from the seventeenth century to the present.

340 Philosophy of Religion (3) (AY)

Philosophical problems in religious belief and religious knowledge. The existence of God, immortality, the problem of evil. Pre: previous work in philosophy or religious studies. (Same as Phil 340)

343 Medieval Europe: 200 A.D.-1500 (3) (IO)

Social intellectual and political history of western Europe from the fall of the Roman Empire to 1500 with emphasis on England and France. (Same as Hist 343)

344 Early Modern Europe: 1500-1789 (3) (IO)

Social intellectual and political history of western Europe from 1500-1789 with emphasis on the Iberian peninsula, Italy, England and France. (Same as Hist 344)

355 Sociology of Religion (3) (IO)

Sociological analysis of religion in contemporary society. Topics include religious movements, secularization and social change, conversion and faith dynamics, and meaning and belonging functions. Pre: Soc 100 or consent of instructor. (Same as Soc 355)

360 Existentialism (3) (IO)

The themes which recur in the works of existential philosophers from the 19th century to the present. Pre: junior standing or consent of instructor. (same as Phil 360)

370 Islam (3) (IO)

A history of the growth and development of Islam from the time of Muhammad to the present. A study of the significance of Islam in its many countries and of its various forms today.

375 Christianity and the Arts (3) (IO)

Relationships of the arts to Christian belief and ritual from early Christian era to the present; role of the artist, church and patron. No prerequisites necessary for juniors and seniors; others admitted by special permission. (Same as Art 375)

385 Religious Arts of East Asia (3) (IO)

Interrelationships of the arts and religion in various Asian cultures, with emphasis on Buddhism, Hinduism, Confucianism, Taoism and Shinto. No prerequisites necessary for juniors and seniors; others admitted by special permission. (Same as Art 385)

390 The Culture and Religion of Hawai'i's People (3) (IO)

Ethnological survey of the religions of Hawai'i from original settlement to the present. Relationship between religion and other aspects of culture. Prehistoric Hawaiian religion, its relationship with Christianity. Immigrant religions, changes, religious revitalization movements, and new introductions. (Same as Anth 390)

391 Women: A Global Perspective (3) (AY)

Modern and contemporary issues affecting women from African, Asian, Latin American, Islamic and Pacific cultures. History, cross-cultural contact and the impact of modern political, social and economic systems will be emphasized in conjunction with theoretical perspectives. (same as Hist 391)

394 Special Topics in Religious Studies (IO)

Intermediate-level topics chosen by the instructor. Course content will vary and may be repeated for credit, provided that a different topic is studied. Pre: junior standing or consent of instructor.

399 Directed Studies (1-3) (S)

Permission of instructor and statement of planned reading or research required. Pre: Junior standing.

400 Death, Anxiety and Freedom (3) (IO)

The phenomenological relationships of death, anxiety, guilt and freedom. The existential source of the human development of religion. Pre: Rels 300 or the consent of the instructor.

410 Comparative Mysticism (3) (IO)

A comparative study of the religious experience and thought of the important mystics in the history of world civilizations. Pre: Rels 300 or consent of instructor.

430 Philosophy of Zen (3) (AY)

Chief philosophical teachings of Zen, its methods and cultural influences. Comparative study of Zen and western thought. Pre: Phil 30 or consent of instructor. (Same as Phil 430 and JpSt 430)

435 Philosophy of Tao (3) (AY)

Philosophical ideas of Lao Tzu, Chang Tzu and the Neo Taoist, and their influences upon the lives of the Chinese and Japanese people. Comparative study of Taoist and western philosophy. Pre: Phil 301 or consent of the instructor. (Same as Phil 435)

450 Mahayana Buddhist Philosophy (3) (AY)

Important tenets and major schools of Mahayana Buddhist philosophy in India, China, Japan, Tibet and Hawai'i. Comparative study of Mahayana and western philosophy. Pre: Phil 302 or consent of instructor. (Same as JpSt 450, Phil 450)

485 Art of Islam (3) (IO)

Major development in the arts and architecture of the Islamic world; relationships with the arts of Europe, Africa and Asia. Pre: Art 270 or consent of instructor. (Same as Art 485)

494 Special Topics in Religious Studies (1-3) (IO)

Advanced-level topics chosen by the instructor. Course content will vary and may be repeated for credit, provided that a different topic is studied. Pre: senior standing or consent of instructor.

495 Seminar in Religion (3) (IO)

Topics such as contemporary religious thought, critical issues in religion, types of religious experience, etc. Ability to do research in Religious Studies is given critical guidance. Consent of instructor.

499 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: Senior standing and consent of instructor.

Note: Selected courses in other disciplines that concern religion, ethics and morality may be taken for credit toward the Religious Studies major when approved by the Religious Studies Committee.

SOCIOLOGY (Soc)

Office: EKH 214A, 974-7460

Professor:

William A. Pearman, Ph.D.

Associate Professors:

Sara R. Millman, Ph.D.

Alton M. Okinaka, Ph.D.

Assistant Professors:

Paul P. Divers, Ph.D.

Tanya F. Johnson, Ph.D.

The Sociology program provides students with broad preparation in the basics of scientific sociology. The major and minor options are organized around a core of basic courses in statistics, research methodology, and theory. In addition, the faculty offer topical courses in a variety of subfields including family, ethnicity, religion, education, social psychology, populations, organizations, and aging. The core and topical offerings are complemented by practicum courses in applied sociology and social research in which students apply their newly acquired knowledge in a hands-on fashion in community agencies and/or actual research settings.

The major and minor programs are designed to furnish students with skills, knowledge, and a scientific perspective useful in a large number of diverse occupations—especially those pertaining to the human services, social scientific research, planning, law, business, and public administration. The major program also provides excellent preparation for graduate work in sociology, social work, and public health as well as the other social sciences. A comprehensive advising program is available to assist students match their personal interests and career objectives with the necessary courses and practical experiences.

Major: 35 semester hours

Required: Soc 100, 200, 280, 280L, 380, 390; a minimum of nine semester hours at the 400-level; twelve additional semester hours. Soc 240 may substitute for Soc 100 in the major or as the prerequisite for upper division Sociology courses, and one 400-level PolS course may be used to fulfill the 400-level requirement when approved by the major advisor.

Minor: 20 semester hours in Sociology

Required: Soc 100, 200, 280, 280L, 380, 390 and six additional semester hours in Sociology at the upper division level.

100 Principles of Sociology (3) (S)

An introduction to the theories, scientific methods and empirical findings of contemporary sociology.

200 Career Opportunities in Sociology (1) (Y)

A forum for the presentation of career opportunities for Sociology majors and minors. The course features speakers, and the development of practical professional skills, including writing a resume. Offered on a CR/NC basis only. Required for Sociology majors and minors. Pre: Soc 100, senior standing or consent of instructor. (Formerly Soc 490)

240 Social Psychology (3) (Y)

An introduction to how sociologists view the relationship between social institutions, social groups and individual actions.

260 Social Problems (3) (IO)

An introduction to the study of social problems in contemporary society, including their nature, sociological causes and possible solutions. Course may focus on a single social problem.

280 Statistical Reasoning in Social Inquiry (3) (Y)

An introduction to basic descriptive, correlational, and inferential statistics used in the social sciences and education. Must be taken concurrently with Soc 280L. (Same as Nurs 280)

280L Laboratory in Statistical Reasoning (1)

An introduction to the techniques and usage of statistical applications involving computation and interpretation of statistics.

300 Family in World Perspective (3) (Y)

A comparative analysis of family and marriage patterns, mate selection, parent-child interaction, divorce rates, socialization of gender roles, legal sanctions, trends in organization and function. Pre: Soc 100 or consent of instructor.

301 Introduction to Social Work (3) (Y)

The sociological analysis of social welfare institutions and their relationship to meeting human needs and solving social problems. Course designed for students intending careers in the helping professions. Pre: Soc 100 or consent of instructor.

305 Organizational Theory and Analysis (3) (AY)

Contemporary theories and techniques used in the analysis of organizations. Designed for students intending careers in administration or the human services. Pre: junior standing or consent of instructor. (Same as PolS 305)

310 Race and Ethnic Relations (3) (AY)

Sociological analysis of the patterns of intergroup relations. Topics include the meaning of race, ethnicity, prejudice and discrimination, and the interactive strategies used by various groups. Emphasis on ethnic processes to Hawai'i and the Pacific region. Pre: Soc 100 or consent of instructor.

320 Social Stratification (3) (Y)

The causes and consequences of institutionalized social inequality. Pre: Soc 100 or consent of instructor.

323 Business and Society (3) (Y)

The impact of business on society and the impact of societal environment on business operations and decision making. Pre: Soc 100 or consent of instructor. (Same as Mgt 423)

324 Crime and Delinquency (3) (IO)

Crime and delinquency; types of adult and juvenile offenders; theories of crime and delinquency; police, courts, prisons, probation, and parole in relation to criminal and delinquent behavior. Pre: Soc 100 or consent of instructor. (Same as PolS 324)

340 Socialization and Identity (3) (AY)

The process by which an individual becomes a functioning member of society. Pre: Soc 100 or consent of instructor.

342 Sociology of Human Aging (3) (Y)

Aging as a social phenomenon, including social impact of a growing elderly population, and emerging social patterns among the elderly. Emphasis on the interplay of biological, psychological, sociological and cultural factors of human aging. Pre: Soc 100 or consent of instructor.

345 Human Populations (3) (Y)

Introduction to population theories and sociological research on population distribution, composition, and change within global and local contexts. Pre: Soc 100 or consent of instructor.

352 Sociology of Education (3) (Y)

Formal education as an aspect of socialization. Emphasis is on the American system from an historical and comparative perspective. Pre: Soc 100 or consent of instructor.

355 Sociology of Religion (3) (Y)

A comparative analysis of religion. Topics include religious movements, secularization and social change, conversion and faith dynamics, and meaning and belonging functions. Case studies drawn from different societies and historical periods. Pre: Soc 100 or consent of instructor. (Same as Rels 355)

380 Methods of Research (3) (Y)

Techniques of empirical research in sociology. Pre: Soc 100 or consent of instructor. (Same as Pols 380)

390 Sociological Theory (3) (Y)

A critical examination of the theoretical foundations of contemporary sociological theories. Beginning with Marx, Weber, Durkheim, and Simmel, examines contemporary examples of social theory, including post-structuralism, critical theory, hermeneutics, and phenomenology. Pre: Soc 100 or consent of instructor.

391 Internship (3-12) (S)

Application of knowledge and skills in a public, private, or government agency/setting. May be taken for a total of 12 credits, only six of which can apply to the Sociology major or three to the minor, and a total of 15 credits of Pols/Soc 391 and Pols 481 may be applied to the Pols major. Pre: consent of instructor, preapproved placement, statement of learning objectives, and completed internship contract. (Same as Pols 391.)

394 Special Topics in Sociology (1-3)

Topics chosen by the instructor. Course content will vary and may be repeated for credit, provided that a different topic is studied. Pre: Soc 100, junior standing, or consent of instructor.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: Soc 100, junior standing, or consent of instructor.

400 Seminar in Social Psychology (3)

The relationship between social pressures/structure and the individual. Emphasis upon current research and theory in the area. Pre: Soc 100 or Soc 240 or consent of instructor.

405 Seminar in Social Organization (3)

Social organization in all its forms, dynamics, and structures. While appealing to an historical and comparative perspective, primary attention will be directed to contemporary forms of social organization with an emphasis upon current research and theory in the area. Pre: Soc 100 or Soc 225 or consent of instructor.

420 Seminar in Social Institutions (3)

Institutions in contemporary society, with focus upon the processes and structures of modern institutions such as the polity, economy, health care, and law. Emphasis upon current research and theory in the area of specific institutions examined. Pre: Soc 100 or Soc 225 or consent of instructor.

430 Seminar in Social Change (3)

Change in human societies from a comparative and historical perspective. Topics covered include modernization, development, tradition, and secularization. Emphasis upon current research and theory in the area. Pre: Soc 100 or consent of instructor.

480 Practicum in Social Research (3)

Direct involvement in all facets of the research process. Students have the option of working on their own projects or on projects initiated by the faculty. May be counted only once toward the required 35 semester hours of the major, but may be repeated once for upper division credit. Pre: Soc 280 and 380 or consent of instructor.

494 Special Topics in Sociology (1-3)

Advanced topics chosen by the instructor. The course content will vary and may be repeated for credit, provided that a different topic is studied. Pre: Soc 100, senior standing, or consent of instructor.

SPEECH AND COMMUNICATION (SpCo)

Office: EKH 214, 974-7479

Associate Professors:

Iva R. Goldman, M.A.
 Ronald D. Gordon, Ph.D.
 Leila L. Kanno, Ph.D.
 Steven Y. Miura, Ph.D.

The Department of Speech and Communication provides students with a fundamental theoretical and practical education in the field of human communication. With its broad-based approach, the department offers coursework in areas related to interpersonal and small group communication, public address, mass communication and media analysis, intercultural communication, and speech pathology and audiology. Students pursuing a major in the program work toward a bachelor's degree in speech that includes required courses in these areas. Students may also pursue a minor to supplement their majors in other degree offering departments.

Major: 33 semester hours**Required:**

SpCo 200 or 251; 12 semester hours from the 300-level or above; 18 semester hours with 3 hours from each of the following areas: drama (Drama 170, 221, 360, 470); interpretation (SpCo 210, 231); phonetics (SpCo 211, 311, 321); mass media (SpCo 260, 262, 360, 362, 460); communication (SpCo 352, 354, 370, 375, 391, 459); speech pathology and audiology (SpCo 300, 301, 400, 401).

Minor: 18 semester hours

1. SpCo 200 or 251.
2. One course from each of the following groups:
 - a) SpCo 352, 370, 459.
 - b) SpCo 210, 211, 300, 301.
 - c) SpCo 354, 375, 391.
 - d) SpCo 260, 262, 360, 362.
3. One additional SpCo course.
 A minimum of 9 semester hours must be taken at the 300-level or above.

151 Introduction to Speech Communication (3) (S)

Principles, theories, and practices in one-to-one, small group, and one-to-many communication situations through participation in structured activities.

199 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required.

200 Fundamentals of Interpersonal Communication (3) (Y)

The fundamental concepts of interpersonal communication: verbal and nonverbal communication in face-to-face dyadic encounters.

210 Voice and Articulation (3) (Y)

Individual and group activities to improve vocal relaxing, support, and control; improvement of articulation.

211 Phonetics (3) (Y)

An introduction to the International Phonetic Alphabet as it applies principally to American English, analysis of sounds, standards of pronunciation, regional dialects, principles of phonetic change. (Same as Ling 211)

231 Oral Interpretation of Literature (3) (AY)

Principles of interpretative reading. Practice in textual analysis. Training in individual and group performance techniques. Development, arrangement, and performance of program. (Same as Dram 231)

251 Public Speaking (3) (Y)

Analysis, preparation and delivery of speeches. Emphasis on content, organization and style.

260 Mass Communication (3) (AY)

Historical and contemporary overview of television, radio, film, and the press in American culture.

262 Introduction to TV-Radio Communication (3) (AY)

Emphasis on basic communication skills central to being an effective electronic media communicator. Field trips to local broadcast stations, and audio and videotaping assignments.

273 Radio Drama (3) (IO)

A survey and production course in Radio Drama with emphasis on the actual production of radio drama(s) for public broadcast. Pre: Dram 170, Speech 260 or consent of instructor. (Same as Dram 273)

299 Directed Studies (1-3)

Permission of instructor and statement of planned reading or research required. Pre: sophomore standing.

300 Speech Pathology (3) (AY)

Speech correction, types of speech defects and hearing problems as they relate to speech dysfunctions.

301 Audiology (3) (AY)

Basic concepts: anatomy and physiology, psychoacoustics, measurement of hearing, and rehabilitation of hard-of-hearing.

311 Generative Phonology (3) (IO)

Binary value distinctive feature analysis of the speech sounds of the natural languages of the world. Consideration given to rule writing conventions, global rule ordering and phonological universals. (Same as Ling 311)

321 Morphology and Syntax (3) (IO)

Introduction to grammatical analysis and theory; practical experience in solving problems in morphology and syntax using data drawn from a wide variety of languages. Pre: Eng 203 or consent of instructor. Recommended: Ling/SpCo 211 or 311. (Same as Eng 321, Anth 321, Ling 321)

352 Communication in Small Groups (3) (AY)

Discussion processes in small groups. Effects of variables such as group organization, leadership, membership, goals on how a group attempts to achieve its purpose.

354 Communication in Innovation (3) (AY)

The role of communications as a change agent in society. Communication strategies in diffusion of information.

360 Impact of the Mass Media (3) (AY)

Analysis of some of the major effects of the mass media on the individual and society.

362 Broadcast Communication Practicum (3)

Field experience in basic principles of broadcast production and communication requiring a minimum of ten hours each week in an assigned broadcast communication setting. Permission of instructor required. May be repeated once for credit.

370 Persuasion (3) (AY)

Inquiry into the nature of persuasion or attitude change with focus on the message as a major determinant of the effects of persuasion on receivers.

375 Nonverbal Communication (3) (Y)

The nonverbal dimensions of human communication.

391 General Semantics (3) (AY)

Understanding language, verbal meaning and implication, roles of perception and assumption (inference and judgment) in human relationships.

399 Directed Studies (1-3)

Statement of planned reading or research required. Pre: junior standing and consent of instructor.

400 Practicum in Speech Pathology I (3) (AY)

Supervised clinical practice with children in the public schools who have articulatory disorders. Emphasis on diagnostic procedures. Pre: consent of instructor.

401 Practicum in Speech Pathology II (3) (IO)

Supervised clinical practice with children in the public schools who have articulatory disorders. Emphasis on therapeutic procedures. Pre: consent of instructor.

459 Intercultural Communication (3) (AY)

Linguistics and nonverbal variables that influence the effectiveness of cross-cultural communication.

460 Mass Media Analysis (3) (AY)

Advanced study in mass communication theory, analysis, and criticism, with emphasis upon the electronic mass media. Pre: SpCo 260 or 360 recommended.

494 Special Topics in Speech and Communication (1-3) (IO)

Advanced-level topics chosen by the instructor. The course content will vary and may be repeated for credit, provided that a different topic is studied. Pre: senior standing and consent of instructor.

499 Directed Studies (1-3)

Statement of planned reading or research required. Pre: senior standing and consent of instructor.

UNIVERSITY (Univ)**101 Freshman Experience Seminar (3)**

Designed to assist first year students in knowing UH Hilo, its programs, services, and place in the tradition of higher education. Students will learn about their role, the skills they will need, expectations of others, career options, and the student's contributions to this multi-cultural setting. Admission is generally limited to classified freshman students.

WOMEN'S STUDIES (WS)

Office: EKH 260, 974-7552

Facilitator:

Sonia Tinglin-Juvik, Ph.D.

Steering Committee:

Susan Brown, Ph.D.

Audrey Furukawa, M.Ed.

April Komenaka, Ph.D.

Sherryll Mleynek, Ph.D.

Kenith Simmons, Ph.D.

Sonia Tinglin-Juvik, Ph.D.

Sandra Wagner-Wright, Ph.D.

The interdisciplinary Women's Studies Certificate program is an adjunct to a student's academic major. Students will explore in-depth gender-based issues from an historical, creative and multi-cultural perspective.

Certificate Requirements: 18 semester hours

1. **Required courses:** WS 151, 495
2. **Electives:** 12 semester hours with a maximum of 9 credits from the same discipline. Students must have 15 upper division credits. The following courses are presently approved for the WS certificate: Anth 320, Hist 319, 360, 390, Eng 355, Psy 325, 335 & 335L, Soc 300, and special topics including Women in American Religion, RelS 394. Other appropriate courses will be reviewed and, when approved, will be listed under Women's Studies in the class schedule. Students may also take up to 6 credits of discipline-based directed study from a participating WS faculty member.

151 Introduction to Women's Studies (3) (Y)

An interdisciplinary survey of women in contemporary society. Topics include issues in history, biology, psychology, education, communication, feminism, ethnicity and gender which impact on women's lives in modern culture. Offered Fall semester only.

299 Directed Studies (1-3) (S)

Topics will be chosen by the instructor. The course content will vary. Course may be repeated for credit, provided that a different topic is studied. Pre: consent of instructor.

394 Special Topics (3) (Y)

Advanced topics will be chosen by the instructor. The course content will vary. Course may be repeated for credit, provided that a different topic is studied. Pre: consent of instructor.

399 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: consent of instructor.

494 Special Topics (3) (Y)

Advanced topics will be chosen by the instructor. The course content will vary. Course may be repeated for credit, provided that a different topic is studied. Pre: consent of instructor.

495 Women's Studies Seminar (3) (AY)

A reading and research seminar under the supervision of the Women's Studies faculty aimed at demonstrating competence in gender issues and integrating gender research from multiple disciplines. Pre: At least one upper-division Women's Studies course or consent of instructor. May be cross-listed with the instructor's department.

499 Directed Studies (1-3) (S)

Statement of planned reading or research required. Pre: consent of instructor.

OTHER PROGRAMS

FOR INFORMATION, PLEASE CALL:

Office of the Vice Chancellor for Academic Affairs

(808) 974-7301

Conference Center

(808) 974-7555

Summer School and Customized Programming

(808) 974-7664

Elderhostel and Senior Programs

(808) 974-7555

Personal and Professional Development Program

Computer Education. The Computer Learning Center, or CLC, provides hands-on training in computer use. The CLC offers a full slate of courses that range from computer literacy to specific business software programs and technical courses on the maintenance and repair of microcomputers. The CLC can customize a program to meet ones computer training needs.

Professional Development/Corporate Training. In-service training programs for various professions, government agencies, and the private sector are also available. Specialized in-service corporate training classes are offered for the professional development of mid-managers and managers of the local business community. Training modules are designed to meet the specific learning needs of individual companies. Courses on supervisory, organizational and communication skills and computer training assist in improving and refining basic managerial skills. An emphasis is placed on the application of skills and performance feedback.

Teacher In-service Training. A variety of in-service courses are offered in Hilo and Kona for professional teachers to help keep teachers abreast of current information in particular subject areas. These courses are not applicable toward baccalaureate or graduate degrees.

Personal Development. UH Hilo strives to meet the needs of the community by providing special programs and presentations on timely issues and topics.

Summer Session

A wide range of credit and non-credit course offerings, student activities and special events are offered. Student groups from abroad and the mainland U.S. reside on campus. Summer session is a unique multi-cultural experience.

Senior Citizen Programs

In the spirit of life-long learning, UH Hilo actively participates with state, county and national agencies in providing unique educational opportunities for Hawai'i County senior citizens. No prerequisite or prior formal education is required to attend these programs. Special programs include the Hawai'i Island Senior Institute (HISI), which offers a wide variety of liberal arts programs designed for seniors, and coordination of a SeniorNet Computer Learning Center which offers introductory computer courses and access to a computer lab.

Elderhostel. UH Hilo is a participating member of the national Elderhostel program and the site of the Hawai'i State Elderhostel office. Elderhostel is a short-term, inexpensive, educational program for older adults who want to expand their horizons and to develop new interests and enthusiasm. The program is committed to the belief that retirement does not represent an end to significant activity for older adults, but a new beginning filled with opportunities and challenges.

Travel Study Programs

For over 20 years, a variety of international and mainland United States study groups have experienced the Big Island learning through travel study programs.

Travel Studies programs have included some or all of the following: ESL/English conversation classes; volcano studies; Hawaiian studies; cultural diversity and social organization; and alternative energy technology. Travel Study Programs are custom designed to fit the needs of requesting client groups.

The Conference Center

The UH Hilo Conference Center has a well-established reputation for coordination and implementation of state, national and international conferences.

The University, by virtue of its unique location, has become the hub of Pacific Rim conferencing and Hilo, with its multi-lingual and multi-cultural population, academic resources and networking capabilities, presents itself as a prime location for national and international conferences. The Conference Center is meeting the new challenges of international conferences with improved technological and support services from the University and a highly trained professional support staff.

Conference services include program development, fiscal management, curriculum and resource support, logistical coordination, and publicity and promotion. With the demand for the number of conferences increasing, and the organizational structure of the implementation of conferences more complex, conferencing has become an integral part of the development of the expanded services offered by UH Hilo.

ADMINISTRATION

UNIVERSITY OF HAWAI'I Board of Regents

Joseph F. Blanco
Momi W. Cazimero*
John A. Hoag
Bert Kobayashi
Clyde T. Kodani
Ah Quon McElrath
Lee A. Ohigashi
David B. Ramos
Stanley Roehrig
Donna Tanoue
Lily K. Yao, Chair
Dan Ishii, Secretary to the Board

* Term expires June 30, 1997.

UNIVERSITY OF HAWAI'I AT HILO ADMINISTRATION

DR. WILLIAM A. PEARMAN
Interim Senior Vice President and Chancellor
B.A. 1962, LaSalle University
M.A. 1964, Fordham University
Ph.D. 1966, University of Pittsburgh

MR. GERALD L. DEMELLO
Director of University Relations
B.A. 1966, B.A.Ed. 1967, Eastern Washington State University
M.A. 1973, University of Hawai'i at Manoa

DR. JACK K. FUJII
Dean, College of Agriculture
B.S. 1963, University of California - Berkeley
M.S. 1968, Ph.D. 1975, University of Hawai'i at Manoa

MR. KERWIN S. IWAMOTO
Interim Vice Chancellor for Administrative Affairs
B.B.A. 1981, University of Hawai'i at Manoa

MS. GAIL MAKUAKANE-LUNDIN
Interim Dean, Student Services
B.A. 1977, University of Hawai'i at Hilo
M.S. 1978, University of Hawai'i at Manoa

DR. PHILLIP A. TAYLOR
Dean, College of Arts and Sciences
B.A. 1967, Florida Presbyterian College
M.A. 1973, Ph.D. 1977, University of Oklahoma

FACULTY

CA—College of Agriculture
CAS—College of Arts and Sciences
CTAHR—College of Tropical Agriculture
and Human Resources
(UHM Hilo Office)
Lib—Library

AANAUI, DON (CAS)
Professor of Art
B.A. 1964, Hunter College of the City
University of New York
M.A. 1965, University of Hawai'i at Manoa
Ph.D. 1969, Columbia University

AMUNDSON, RONALD A. (CAS)
Professor of Philosophy
B.A. 1970, Ph.D. 1975, University of
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ANANDA-STOUT, BETH G. (CAS)
Assistant Professor of Nursing
B.S.N. 1974, Boston University
M.S.N., C.N.M. 1983, University of Utah

ANDERSON, JAMES L. (CAS)
Associate Professor of Geology
Director, Center for the Study of
Active Volcanoes
B.S. 1976, M.S. 1978, Portland State
University
Ph.D., 1987, University of
Southern California

ANDERSON, MITCHELL J. (CAS)
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B.A. 1982, University of Hawai'i at Hilo
M.A. 1986, Ph.D. 1988, Auburn University

ARITA-TSUTSUMI, LORNA H. (CA)
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UH Graduate Faculty
B.A. 1976, M.S. 1979, Ph.D. 1983,
University of Hawai'i at Manoa

BAILEY, H. ROBERT (CAS)
Instructor of English
B.S. 1956, University of Minnesota
M.A. 1968, San Francisco State University

BERNARDINO, T. HAUNANI (CAS)
Associate Professor of Hawaiian Studies
B.A. 1971, Professional Diploma 1985, M.A.
1988, University of Hawai'i at Manoa

BEST, GARY D. (CAS)
Professor of History
B.A. 1968, M.A. 1969, Ph.D. 1973,
University of Hawai'i at Manoa

BROWN, DANIEL E. (CAS)

Professor of Anthropology
UH Graduate Faculty
B.A. 1972, Brown University
M.A. 1975, Ph.D. 1978, Cornell University

BROWN, SUSAN G. (CAS)

Professor of Psychology
B.A. 1977, Wichita State University
M.S. 1981, Ph.D. 1983, Tulane University

BUCHANAN, NINA K. (CAS)

Associate Professor of Education
B.A. 1968, M.S. 1972, Montana State
University
Ph.D. 1984, Purdue University

CALTON, JERRY M. (CAS)

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