

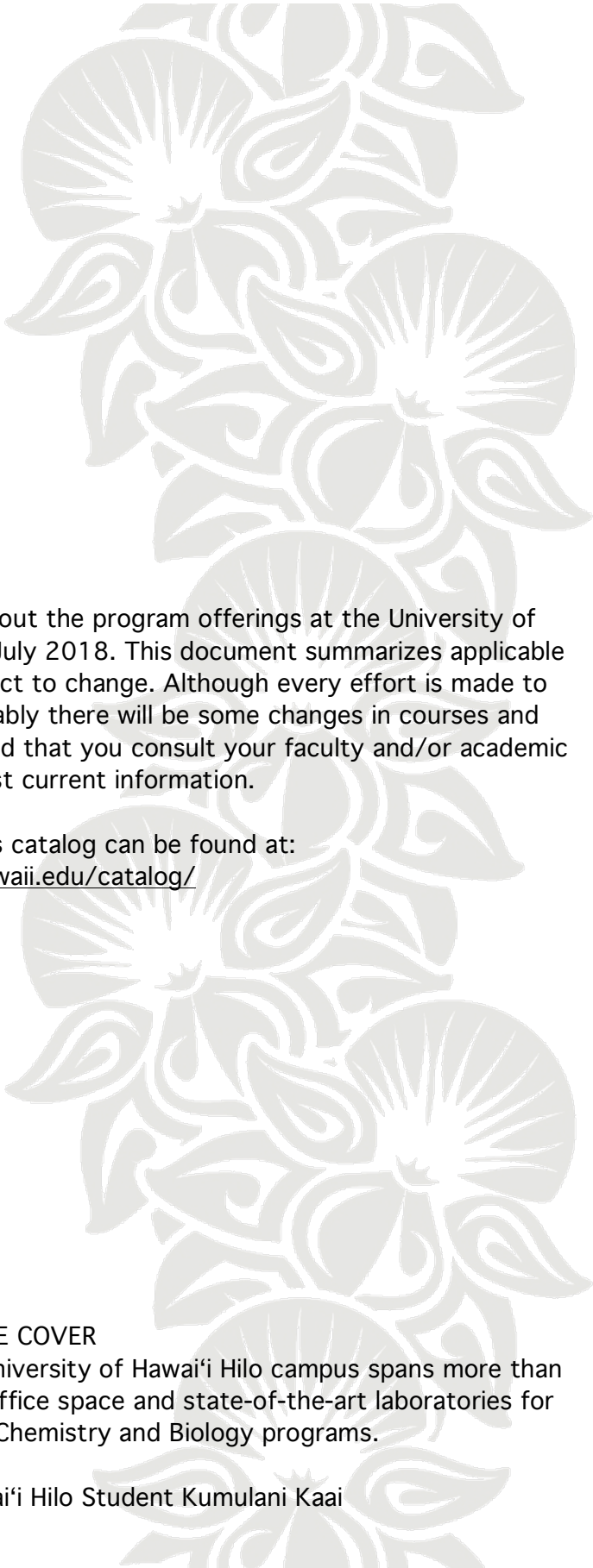


UNIVERSITY
of HAWAI'I®

HILO



CATALOG 2017-2018



This catalog contains general information about the program offerings at the University of Hawai'i Hilo for the period of August 2017 to July 2018. This document summarizes applicable policies and programs of UH Hilo, and is subject to change. Although every effort is made to keep this catalog correct and current, inevitably there will be some changes in courses and program requirements. It is highly recommended that you consult your faculty and/or academic advisors for the most current information.

An online version of this catalog can be found at:
<https://hilo.hawaii.edu/catalog/>

ON THE COVER

The Science and Technology building on the University of Hawai'i Hilo campus spans more than 42,000 square feet and houses classrooms, office space and state-of-the-art laboratories for UH Hilo's Physics, Astronomy, Chemistry and Biology programs.

Photo by University of Hawai'i Hilo Student Kumulani Kaai



About UH Hilo: Chancellors Message

The University of Hawai'i at Hilo is a growing university of 4,000 students that offers a wide range of liberal arts and professional programs, as well as a number of graduate and doctoral programs. We are looking to the future and preparing our students to make lifelong contributions to their communities and help build a prosperous future.

UH Hilo offers an exceptional campus and island setting in which to live and study. The university community enjoys a rich diverse student population, with a unique blend of local, mainland and international students, all living and learning together in a harmonious and safe environment. The surrounding island community, rooted in an agriculture history, is one of the most ethnically diverse in the country.

The island landscape, too, is extraordinarily diverse, with snow-capped mountains, windy deserts, lush rainforests, endangered coral reefs, protective estuaries, active volcanoes and more. Most importantly, we live in the home of our indigenous host culture, and everything we do supports the infusion of Hawaiian values of cultural knowledge and language.

The unique diversity in culture and geography makes Hawai'i Island the perfect "living laboratory" in which to teach, learn and do research:

- Our nursing, teaching and computer science, pharmaceutical sciences and other key programs are strong and growing.
- Our interdisciplinary STEM programs—astronomy, math, chemistry, biology, marine science and more—make our graduates much more flexible in taking advantage of limited opportunities.
- Our humanities disciplines are in sync with our local community's need for professionals in culture and the arts, language and communications.
- Our agricultural programs are addressing the pressing need for our state to move toward sustainable food systems.
- Our business and economics program offers one of only two AACSB-accredited business administration degree programs in the state of Hawai'i.

Further, our students get a big boost with applied learning experiences in internships, collaborative research with their professors, and community outreach. These are the kinds of practical experiences that make our graduates a cut above in a tight job market. When our students graduate, they have a diploma and a resume.

On behalf of the UH Hilo *'ohana* (family), I'm very pleased to welcome you to the UH Hilo campus community and wish you every success in your educational endeavors.

Marcia Sakai
Interim Chancellor



Home	1
Degrees and Certificates Offered	1
Distance Learning	2
Academic Calendars 2017-2018	2
Services and Resources	4
Admissions	5
Residency Regulations for Tuition Purposes	5
Admission Procedures	6
Admission of First-Time Freshmen	6
Admission of Transfer Students	6
Admission of International Students	7
Admission of Unclassified, Non-degree Students	7
Admission of Returnees	8
Admission of Auditors	8
Running Start/Early Admission Program	8
Admission to Summer Session	8
Admission to Agriculture Development Program	8
Information for Admitted Students	8
Tuition, Fees, and Financial Aid	9
Tuition Schedule	9
Fee Schedule	10
Payments	10
Financial Obligations to the University	11
Tuition and Fees Refund Policy	11
Financial Aid Information	11
Steps Necessary to Receive a Financial Aid Award	11
Verification of Application Information	11
Financial Aid Satisfactory Academic Progress	12
Withdrawing From Classes	12
State of Hawai'i Financial Aid	13
Federal Aid Programs	13
Scholarships	14
Other Listings Of Financial Aid	14
Academic Expectations and Responsibilities	14
Academic Advising	14
Registration	15
Adding a Course	15
Dropping or Withdrawing from a Course	15
Complete Withdrawal	15
Change of Major/College/Classified Status	16
Classification of Students	16
Course Numbering System	16
Credits, Grades and Examinations	16
Transfer Credits	19
Credit for Education Received While in Military Service	19
Final Examinations	19
Repeating Courses	19
Directed Reading and Directed Studies	19
Declaration of Major	20
Attendance & Satisfactory Progress	20
Academic Warning, Probation & Dismissal	20
Readmission	20
Academic Bankruptcy	20
Honors	21
Academic Dishonesty	21
Academic Complaints	21



Participation in Assessment Efforts	21
Graduation Requirements	21
Second Baccalaureate Degrees	22
Major, Minor and Certificate Requirements	22
Concurrent Degrees and Double Majors	23
Exceptions to Academic Regulations	23
Accreditation	23
Clery Act Statement	24
Computer Policies	24
Email Policy	24
Medical Clearance	24
Student Health Insurance	25
Nondiscrimination Policy	25
Notice to Persons with Disabilities	25
Distance Learning Courses and Accessibility	25
Policy for Tobacco Products	26
Sexual Harassment and Sexual Assault	26
Graduation and Persistence Rates	27
Family Educational Rights and Privacy Act (FERPA)	27
Student Conduct Code	28
Baccalaureate Degree Requirements	30
General Education and Integrative Requirements for the Baccalaureate Degree	30
Transfer Students with a Degree	31
Transfer Students from within the University of Hawai'i System	31
Other Transfer Students	31
General Education Core: Basic Requirements (All Majors)	31
General Education Core: Area Requirements (All Majors)	33
Integrative Requirements (All Majors)	36
Upper Division Requirement	38
College of Agriculture, Forestry, and Natural Resource Management (CAFNRM)	38
Agriculture: Animal Science—Livestock Production Specialty	40
B.S. in Agriculture: Animal Science, Livestock Production Specialty Requirements	41
Agriculture: Animal Science—Pre-Veterinary Specialty	41
B.S. in Agriculture: Animal Science, Pre-Veterinary Specialty Requirements	42
Agriculture: Aquaculture Specialty	42
B.S. in Agriculture: Aquaculture Specialty Requirements	43
Agriculture: Tropical Horticulture Specialty	44
B.S. in Agriculture: Tropical Horticulture Specialty Requirements	44
Agriculture: Tropical Plant Science and Agroecology Specialty	45
B.S. in Agriculture: Tropical Plant Science and Agroecology Specialty Requirements	45
Agriculture Minor	46
Beekeeping Certificate	46
Energy Science Certificate	46
Forest Resource Management and Conservation Certificate	47
Plant Tissue Culture Certificate	47
Special CAFNRM Programs	48
Tropical Farming Certificate	48
Unmanned Aircraft Systems Certificate	48
College of Arts and Sciences (CAS)	49
Administration of Justice	50
B.A. in Administration of Justice Requirements	50
Anthropology	51
B.A. in Anthropology Requirements	53
Anthropology Minor	53
Global Engagement Certificate	54
Art	56



B.A. in Art Requirements	57
Art Minor	57
Digital Visualization and Communication Certificate	57
Astronomy	58
B.S. in Astronomy Requirements	59
Astronomy Minor	59
Minor in Earth and Space Science	59
Biology	59
B.A. in Biology Requirements	61
B.S. in Biology: Cell, Molecular & Biomedical Sciences Track Requirements	62
B.S. in Biology: Ecology, Evolution and Conservation Track Requirements	63
Biology Minor	64
Chemistry	65
B.A. in Chemistry Requirements	66
B.A. in Chemistry: Biosciences Requirements	66
Chemistry Minor	67
Pre-Pharmacy Certificate	67
Communication	68
B.A. in Communication Requirements	69
Communication Minor	70
Computer Science	70
B.S. in Computer Science Requirements	71
Computer Science Minor	71
Computer Application Development Specialization Certificate	71
Database Management Certificate	72
Pre-Engineering Program	72
Education- School of Education	73
Pre-Teacher Education Sequence for MAT Admission	73
Educational Studies Certificate	74
English	74
B.A. in English Requirements	75
English Minor	76
Creative Writing Certificate	76
Teaching English to Speakers of Other Languages (TESOL) Certificate	76
Environmental Science	77
B.S. in Environmental Science Requirements	77
Gender and Women’s Studies	78
B.A. in Gender and Women's Studies Requirements	79
Gender & Women’s Studies Minor	81
Geography	81
B.A. in Geography Requirements	81
Geography Minor	83
Environment Studies Certificate	83
Planning Certificate	83
Geology	84
B.A. in Geology Requirements	85
B.S. in Geology Requirements	85
Geology Minor	86
Minor in Earth and Space Science	86
History	86
B.A. in History Requirements	87
History Minor	89
Public History Certificate	89
Kinesiology and Exercise Sciences	89
B.A. in Kinesiology and Exercise Sciences Requirements	90
Languages	91



Japanese Studies	92
B.A. in Japanese Studies Requirements	92
Japanese Studies Minor	93
Chinese Studies Certificate	93
Chinese Studies Certificate Requirements	94
Filipino Studies Certificate	94
Filipino Studies Certificate Requirements	95
Spanish Language for Careers	95
Liberal Studies	96
Pre-Law Certificate	96
Marine Science	97
B.A. in Marine Science Requirements	99
B.S. in Marine Science Requirements	101
Marine Science Minor	102
Marine Option Program Certificate	102
Mathematics	103
B.A. in Mathematics Requirements	104
Mathematics Minor	105
STEM Research Honors Certificate Program	105
Natural Science	106
B.A. in Natural Science Requirements	107
Nursing - School of Nursing	110
BSN Program Options	111
Academic Regulations for Nursing	111
B.S. in Nursing Requirements	113
Health Care Administration Certificate	114
Pacific Islands Studies Certificate	114
Pacific Islands Studies Certificate Requirements	115
Performing Arts	115
B.A. in Performing Arts Requirements	116
Performing Arts Certificate	117
Philosophy	117
B.A. in Philosophy Requirements	117
Philosophy Minor	118
Physics	118
B.A. in Physics Requirements	119
Physics Minor	120
Political Science	120
B.A. in Political Science Requirements	121
Political Science Minor	122
International Politics Certificate	122
UH Hilo Pre-Pharmacy	123
Psychology	124
B.A. in Psychology Requirements	125
Sociology	125
B.A. in Sociology Requirements	126
Sociology Minor	127
Business Administration and Economics	127
BBA in General Business	129
BBA in Accounting	130
Economics Minor	131
Business Administration Minor	131
Business Administration Certificate	131
International Studies Certificate, Tourism Concentration	131
Finance Certificate	132
Accounting Certificate	132



Asia-Pacific-US Economic Relations Certificate	132
Daniel K. Inouye College of Pharmacy (DKICP) Undergraduate Program	133
B.A. in Pharmacy Studies Requirements	133
Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language Undergraduate Programs	134
Hawaiian Studies	134
B.A. in Hawaiian Studies Requirement	136
Hawaiian Studies Minor	137
Hawaiian Culture Certificate	137
Hawaiian Language Certificate	137
Multidisciplinary Hawaiian Studies Certificate	138
Linguistics	138
B.A. in Linguistics Requirements	139
Linguistics Minor	140
Contemporary Indigenous Multilingualism Certificate	140
College of Continuing Education and Community Service (CCECS)	140
How to Read Course Descriptions	141
Accounting (ACC) Courses	141
Administration of Justice (AJ) Courses	142
Aeronautical Sciences (AERS) Courses	143
Agribusiness (AGBU) Courses	143
Agricultural Economics (AGEC) Courses	143
Agricultural Engineering (AGEN) Courses	144
Agriculture (AG) Courses	144
Agronomy (AGRN) Courses	145
Animal Science (ANSC) Courses	145
Anthropology (ANTH) Courses	146
Aquaculture (AQUA) Courses	148
Art (ART) Courses	149
Astronomy (ASTR) Courses	151
Biology (BIOL) Courses	153
Business (BUS) Courses	156
Chemistry (CHEM) Courses	156
Chinese (CHNS) Courses	158
Civil Engineering (CE) Courses	159
Communication (COM) Courses	159
Community Health Education (CHE) Courses	161
Computer Science (CS) Courses	161
Dance (DNCE) Courses	163
Drama (DRAM) Courses	164
Economics (ECON) Courses	165
Education (ED) Courses	166
Engineering (ENGR) Courses	167
English (ENG) Courses	168
English as a Second Language (ESL) Courses	171
Entomology (ENTO) Courses	173
Environmental Studies/Science (ENSC) Courses	173
Filipino (FIL) Courses	174
Finance (FIN) Courses	174
Forestry (FOR) Courses	175
French (FR) Courses	175
Geography (GEOG) Courses	175
Geology (GEOL) Courses	178
Hawaiian Language (HAW) Courses	180
Hawaiian Studies (HWST) Courses	180
History (HIST) Courses	181
Honors (HON) Courses	184



Horticulture (HORT) Courses	184
Interdisciplinary Studies (IS) Courses	185
Japanese (JPNS) Courses	185
Japanese Studies (JPST) Courses	187
Ke'elikōlani Education (KED) Courses	189
Ke'elikōlani Hawaiian Language (KHAW) Courses	190
Ke'elikōlani Hawaiian Studies (KHWS) Courses	191
Ke'elikōlani Indigenous Language (KLAN) Courses	192
Ke'elikōlani Indigenous Studies (KIND) Courses	192
Korean (KOR) Courses	192
Kinesiology and Exercise Sciences (KES) Courses	193
Language (LANG) Courses	195
Linguistics (LING) Courses	196
Management (MGT) Courses	197
Marine Science (MARE) Courses	198
Marketing (MKT) Courses	201
Mathematics (MATH) Courses	202
Music (MUS) Courses	203
Natural Resources (NRES) Courses	206
Natural Sciences (NSCI) Courses	206
Nursing (NURS) Courses	207
Performing arts (PART) Courses	209
Philosophy (PHIL) Courses	209
Physics (PHYS) Courses	211
Plant Pathology (PPTH) Courses	212
Plant Physiology (PPHY) Courses	213
Political Science (POLS) Courses	213
Psychology (PSY) Courses	215
Quantitative Business Analysis (QBA) Courses	218
Sociology (SOC) Courses	218
Soil Science (SOIL) Courses	220
Spanish (SPAN) Courses	220
Tourism (TOUR) Courses	221
University (UNIV) Courses	221
Gender and Womens Studies (WS) Courses	221
Graduate Education General Information	225
Graduate Admission Policies	225
Graduate Admission Procedures	227
Graduate Tuition and Fees	227
Registration and Degree Requirements	228
Requirements for Candidates for Masters Degrees	230
Requirements for Candidates for Doctoral Degrees	232
Graduate Student Rights and Responsibilities	235
M.A. in Heritage Management	235
M.A. in Counseling Psychology	236
Master of Education (M.Ed.)	238
Master of Arts in Teaching (MAT)	239
Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language Graduate Programs	240
Kahuawaiola Indigenous Teacher Education Graduate Program Certificate	241
M.A. in Indigenous Language and Culture Education	243
M.A. in Hawaiian Language and Literature	244
Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization	245
Doctor of Nursing Practice (D.N.P.)	247
Daniel K. Inouye College of Pharmacy (DKICP) Graduate Programs	248
Doctor of Pharmacy (Pharm.D.)	249
Health Sciences Research Certificate	252



Healthcare Leadership Certificate	252
Rural Health Graduate Certificate (PharmD)	253
Ph.D. in Pharmaceutical Sciences	253
M.S. in Tropical Conservation Biology and Environmental Science	257
Graduate Courses	260
Anthropology (ANTH) Graduate Courses	260
Psychology (PSY) Graduate Courses for the Master of Arts in Counseling Psychology	261
Education (ED) Graduate Courses	263
Hawaiian Language (HAW) Graduate Courses	265
Hawaiian Studies (HWST) Graduate Courses	266
Ke'eliko'ani Education (KED) Graduate Courses	266
Ke'eliko'ani Indigenous Language (KLAN) Graduate Courses	267
Ke'eliko'ani Indigenous Studies (KIND) Graduate Courses	268
Ke'eliko'ani Linguistics (KLIN) Graduate Courses	268
Nursing (NURS) Graduate Courses	268
Pharmacy Practice (PHPP) Post-Baccalaureate Courses	270
Pharmaceutical Science (PHPS) Post-Baccalaureate Courses	273
Tropical Conservation and Environmental Science (CBES) Graduate Courses for the Master of Science in TCBS	281



Home

For **class schedules**, please visit the [MyUH class availability](#) page.

- [About UH Hilo](#)
- [Academic Regulations](#)
- [Academic Calendars](#)
- [Undergraduate Education](#)
 - [General Education Core and Integrative Requirements, New since Fall 2011](#)
 - [Undergraduate Courses](#)
- [Graduate Education](#)
 - [Graduate Courses](#)
- [Tuition, Fees and Financial Aid](#)
- [Back Issues](#) (Current and previous catalogs available in PDF format)

Notice Regarding Phone Number Changes

Effective October 22, 2013, **most phone and fax numbers at UH Hilo changed** to a 932- prefix (previously 974- and 933- prefixes). The phone and fax numbers listed here may not reflect these changes. Please visit the [UH Hilo Phone Directory](#) for up-to-date contact information. Searching by phone number in the directory is an easy way to find new numbers or call the University's main switchboard at (808) 932-7000.

Download

An abridged version of the catalog is available for download in PDF format on the [Back Issues](#) page. Note that back issues do not reflect the October 22, 2013, phone number change.

Contact

Prospective students who have questions may contact:

University of Hawai'i at Hilo
Admissions Office
200 W. Kāwili Street
Hilo, HI 96720-4091

University main exchange: (808) 932-7000
Email: uhhadm@hawaii.edu
Website: hilo.hawaii.edu

This publication is available in alternate format upon request. Please contact [Disability Services](#) at (808) 932-7623 or 933-3334 (TTY).

It is the goal of the University of Hawai'i at Hilo to publish a catalog that provides both an introduction and a practical, comprehensive guide to the programs, courses, policies, and related information regarding the University. Please direct any omissions or inaccuracies to: Catalog Editor, 200 W. Kāwili Street, Hilo, HI 96720-4091; (808) 932-7452 or catalog@hawaii.edu.

Disclaimer

This document is published for informational purposes only. It provides general information about the University of Hawai'i at Hilo's programs and services and summarizes major policies and procedures as they relate to students. Because this catalog, however, is published annually or less frequently, it may not always reflect the most recent information concerning programs, courses, services, regulations, policies, procedures, and other matters contained herein. Students should check with their advisors to obtain the most recent academic information

regarding their departments, courses, and programs; students should check with appropriate Student Affairs professionals for updated information about other facets of campus student life.

The University reserves the right to change, delete, supplement, or otherwise amend at any time any information, requirements, and policies contained in this catalog. This right extends to tuition and fee charges which are subject to change in accordance with Hawai'i state law and/or actions by the Board of Regents or University administration.

Degrees and Certificates Offered

Bachelor's Degrees

- [Accounting, B.B.A.](#)
- [Administration of Justice, B.A.](#)
- [Agriculture, B.S.: Animal Science—Livestock Production Specialty](#)
- [Agriculture, B.S.: Animal Science—Pre-Veterinary Specialty](#)
- [Agriculture, B.S.: Aquaculture Specialty](#)
- [Agriculture, B.S.: Tropical Horticulture Specialty](#)
- [Agriculture, B.S.: Tropical Plant Science and Agroecology Specialty](#)
- [Anthropology, B.A.](#)
- [Art, B.A.](#)
- [Astronomy, B.S.](#)
- [Biology, B.A.](#)
- [Biology, B.S.: Cell, Molecular & Biomedical Sciences Track](#)
- [Biology, B.S.: Ecology, Evolution and Conservation Track](#)
- [Business Administration, B.B.A.: General Business](#)
- [Chemistry, B.A.](#)
- [Chemistry, B.A.: Biosciences](#)
- [Communication, B.A.](#)
- [Computer Science, B.S.](#)
- [English, B.A.](#)
- [Environmental Science, B.S.](#)
- [Gender and Women's Studies, B.A.](#)
- [Geography, B.A.](#)
- [Geology, B.A. and Geology, B.S.](#)
- [Hawaiian Studies, B.A.](#)
- [History, B.A.](#)
- [Japanese Studies, B.A.](#)
- [Kinesiology and Exercise Sciences, B.A.](#)
- [Liberal Studies, B.A.](#)
- [Linguistics, B.A.](#)
- [Marine Science, B.A. and Marine Science, B.S.](#)
- [Mathematics, B.A.](#)
- [Natural Science, B.A.](#)
- [Nursing, B.S.](#)
- [Performing Arts, B.A.](#)
- [Pharmacy Studies, B.A.](#)
- [Philosophy, B.A.](#)
- [Physics, B.A.](#)
- [Political Science, B.A.](#)
- [Psychology, B.A.](#)
- [Sociology, B.A.](#)

Minors

- [Agriculture](#)
- [Anthropology](#)
- [Art](#)
- [Astronomy](#)
- [Biology](#)
- [Business Administration](#)
- [Chemistry](#)



- Communication
- Computer Science
- Earth and Space Science
- Economics
- English
- Gender and Women's Studies
- Geography
- Geology
- Hawaiian Studies
- History
- Japanese Studies
- Linguistics
- Marine Science
- Mathematics
- Philosophy
- Physics
- Political Science
- Sociology

Master's Degrees

- Counseling Psychology, M.A.
- Education, M.Ed.
- Hawaiian Language and Literature, M.A.
- Heritage Management, M.A.
- Indigenous Language and Culture Education, M.A.
- Teaching, M.A.
- Tropical Conservation Biology & Environmental Science, M.S.

Doctoral Degrees

- Hawaiian and Indigenous Language and Culture Revitalization, Ph.D.
- Nursing Practice, D.N.P.
- Pharmaceutical Sciences, Ph.D.
- Pharmacy, Pharm. D.

Undergraduate Certificate Programs

- Accounting
- Asia-Pacific-US Economic Relations
- Beekeeping
- Business Administration
- Chinese Studies
- Computer Application Development Specialization
- Contemporary Indigenous Multilingualism
- Creative Writing
- Database Management
- Digital Visualization and Communication *New*
- Educational Studies
- Energy Science
- Environmental Studies
- Filipino Studies
- Finance
- Forest Resource Management and Conservation
- Global Engagement
- Hawaiian Culture
- Hawaiian Language
- Health Care Administration
- International Politics
- International Studies (Tourism Concentration)
- Marine Option Program
- Multidisciplinary Hawaiian Studies
- Pacific Islands Studies
- Performing Arts

- Planning
- Plant Tissue Culture
- Pre-Law Certificate
- Pre-Pharmacy Certificate
- Public History
- Spanish Language for Careers
- STEM Research Honors Certificate Program
- Teaching English to Speakers of Other Languages (TESOL)
- Tropical Farming
- Unmanned Aircraft Systems (UAS) *New*

Graduate Certificate Programs

- Kahuwaiola Indigenous Teacher Education
- Healthcare Leadership (PharmD)
- Health Sciences Research (PharmD) Rural
- Health (PharmD) *New*

Distance Learning

The University of Hawaii at Hilo offers selected distance learning courses. Offerings will vary between semesters and are noted on the class availability and in STAR GPS.

In addition, the programs listed below are offered via Distance Learning:

- Doctor of Nursing Practice (DNP)
- Kahuwaiola Indigenous Teacher Education Program (by videoconferencing)
- Master of Arts in Indigenous Language & Culture Education (by videoconferencing)
- Master of Education (M.Ed.)
- Bachelors of Science in Nursing (BSN)- Registered Nurse (RN) to BSN only

For more information please see: [Distance Learning at UH Hilo](#)

Academic Calendars 2017-2018

Fall 2017 Semester Academic Calendar

Subject to change without notice. Last updated 06/14/2017.

Event	Date(s)
Early Advising	Mar 1-Apr 7
Early Registration begins	Apr 10 (Mon)
Holiday: Statehood Day	Aug 18 (Fri)
Last day to withdraw from classes without owing tuition and fees	Aug 20 (Sun)
Last day to register without \$30 late fee	Aug 20 (Sun)
First day of instruction	Aug 21 (Mon)
Last day to register or add classes	Aug 25 (Fri)
Late add with permission only.	Aug 26-Sep 1 (Sat-Fri)



Event	Date(s)
Last Day to Withdraw From Classes Without Owing Tuition. Student fees are still owed. (If you register and decide to not attend, you must officially withdraw by this date. Failure to withdraw will result in a financial obligation to the UH System and may result in an "F" for the class(es) not attended.) Note: Student activity fees are not refunded unless the student is completely withdrawn from all campuses of the University of Hawai'i system on or before the last day of late registration (add period) as established at each institution.	Sep 1 (Fri)
Holiday: Labor Day	Sep 4 (Mon)
Final deadline to apply for Fall 2016 graduation	Sep 8 (Fri)
Last day to exercise Credit/No Credit	Sep 8 (Fri)
Last day to submit Auditors Form	Sep 8 (Fri)
Last day to drop a class online without "W" (To drop all your UH Hilo classes, visit the Complete Withdrawal instructions page.)	Sep 11 (Mon)
Last day to receive 50% refund of tuition for complete withdrawals (If you have not yet paid for your tuition, your account will be charged for 50% of the tuition and all fees.)	Sep 11 (Mon)
No refunds will be issued after this date.	Sep 11 (Mon)
Priority deadline to apply for Spring 2018 graduation	Oct 2 (Mon)
Graduate thesis/dissertation to committee deadline	Oct 16 (Mon)
Last day to drop a class online with "W" (To drop all your UH Hilo classes, visit the Complete Withdrawal instructions page.)	Oct 27 (Fri)
"I" removal deadline (for grades received in Spring or Summer 2017): student to instructor	Nov 1 (Wed)
Last day to apply for Credit-by-Exam for Fall	Nov 1 (Wed)
Holiday: Veterans' Day	Nov 10 (Fri)
"I" removal and change of grade deadline (for grades received in Spring or Summer 2017): instructor to the Office of the Registrar	Nov 15 (Wed)
Graduate thesis/dissertation defense deadline	Nov 15 (Wed)
Last day to submit Credit-by-Exam results to Office of the Registrar	Nov 15 (Wed)
Holiday: Thanksgiving Day	Nov 23 (Thu)
Non-instructional day	Nov 24 (Fri)
Last day of instruction	Dec 7 (Thu)
Last day to completely withdraw (from all classes) with a "W"	Dec 7 (Thu)
Final examinations	Dec 11-15 (Mon-Fri)
Fall Semester ends	Dec 15 (Fri)
UH Hilo Fall 2016 Commencement	Dec 16 (Sat)
Final grades due in MyUH at 12 noon	Dec 18 (Mon)
Graduate Form 3: thesis/dissertation to Library & Graduate Division deadline	Jan 9, 2018 (Tues)
Graduate form 4 for Fall graduates: Certificate of Completion of Degree Requirements due to the Office of the Registrar. No extensions.	Jan 12, 2018 (Fri)

Spring 2018 Semester Academic Calendar

Subject to change without notice. Last updated 06/14/2017.

Event	Date(s)
Holiday: New Year's	Jan 1 (Mon)
Orientation, advising and registration	TBA
Last day to withdraw from classes without owing tuition & fees	Jan 7 (Sun)
Last day to register without \$30 late fee	Jan 7 (Sun)
First day of instruction	Jan 8 (Mon)
Last day to register or add a class	Jan 12 (Fri)
Holiday: Martin Luther King Day	Jan 15 (Mon)
Late add with permission only	Jan 13-19 (Sat-Fri)
Last Day to Withdraw From Classes Without Owing Tuition. Student fees are still owed. (If you register and decide to not attend, you must officially withdraw by this date. Failure to withdraw will result in a financial obligation to the UH System and may result in an "F" for the class(es) not attended.) NOTE: Student activity fees are not refunded unless the student is completely withdrawn from all campuses of the University of Hawai'i system on or before the last day of late registration (add period) as established at each institution.	Jan 19 (Fri)
Final deadline to apply for Spring 2018 graduation	Jan 26 (Fri)
Last day to exercise Credit/No Credit	Jan 26 (Fri)
Last day to submit Auditors Form	Jan 26 (Fri)
Last day to drop a class online without "W" (To drop all your UH Hilo classes Last day to receive 50% refund of tuition for complete withdrawals. (If you have not yet paid for your tuition, your account will be charged for 50% of the tuition and all fees.)	Jan 29 (Mon)
No refunds will be issued after this date.	Jan 29 (Mon)
Holiday: President's Day	Feb 19 (Mon)
Graduate theses/dissertation to committee deadline	Mar 15 (Thur)
Last day to drop a class online with "W" . To drop all your UH Hilo classes	Mar 16 (Fri)
Holiday: Prince Kūhiō Day	Mar 26 (Mon)
Spring Recess	Mar 26-30 (Mon-Fri)
Holiday: Good Friday	Mar 30 (Fri)
"I" removal deadline (for grades received in Fall 2017): student to instructor	Apr 2 (Mon)
Last day to apply for Credit-by-Exam for Spring	Apr 2 (Mon)
Priority deadline to apply for Summer & Fall 2017 graduation	Apr 2 (Mon)
Last day to submit Credit-by-Exam results to the Office of the Registrar	Apr 16 (Mon)
"I" removal and change of grade deadline (for grades received in Fall 2017): instructor to Office of the Registrar	Apr 16 (Mon)
Last day of instruction	May 2 (Wed)
Last day to completely withdraw (from all classes) with a "W"	May 2 (Wed)
Final examinations	May 7-11 (Mon-Fri)
Spring semester ends	May 11 (Fri)
UH Hilo Spring 2017 Commencement	May 12 (Sat)
Final grade due in MyUH at 12 noon	May 14 (Mon)



Event	Date(s)
Graduate form 3: Thesis/Dissertation to Library and Office of the Registrar deadline	June 5 (Tue)
Graduate form 4 for Spring Graduates: Certificate of Degree Requirements due to the Office of the Registrar. No extensions.	June 8 (Fri)
Final deadline to apply for Summer 2018 graduation	July 6 (Fri)

Services and Resources

Academic Computing Services

(808) 932-7043
<https://hilo.hawaii.edu/oct/acs/>

Advising Center

Student Services Center, Room E-203
(808) 932-7776
<https://hilo.hawaii.edu/~advising/>

Board of Regents and Administration List

<https://hilo.hawaii.edu/catalog/board-of-regents-and-administration>

Business Services

Business Office, Room 101
(808) 932-7397
<https://hilo.hawaii.edu/uhh/bo/>

Campus and Community Service

Campus Center, Room 312
(808) 932-7796
<https://hilo.hawaii.edu/campuscenter/service/>

Campus Recreation

Student Life Center
Front Desk: (808) 932-7607
Offices: (808) 932-7611
<https://hilo.hawaii.edu/rec/>

Career Development Services

Student Services Center, Room E-203
(808) 932-7777
<http://career.uhh.hawaii.edu/>

Cashier's Office

Student Services Center, Room W-101
(808) 932-7025
<https://hilo.hawaii.edu/uhh/bo/cashier/>

Counseling Services

Student Services Center, Room E-203
(808) 932-7465
<https://hilo.hawaii.edu/studentaffairs/counseling/>

Dean of Students

Student Services Center, Room W-305
(808) 932-7445
<https://hilo.hawaii.edu/studentaffairs/conduct/>

Disability Services

Student Services Center, Room E-215
Phone (Voice): (808) 932-7623
TTY: (808) 932-7002
<https://hilo.hawaii.edu/studentaffairs/uds/>

Distance Learning

<https://hilo.hawaii.edu/academics/dl/>

Exchange Programs

National Student Exchange (NSE)
Campus Center, Room 313
(808) 932-7389
<https://hilo.hawaii.edu/studentaffairs/nse/>

Faculty Lists

Faculty: hilo.hawaii.edu/catalog/faculty

Emeriti Faculty: hilo.hawaii.edu/catalog/emeriti-faculty
Affiliate Faculty: hilo.hawaii.edu/catalog/affiliate-faculty

International Student Services

Student Services Center, Room E-204
(808) 932-7467
<https://hilo.hawaii.edu/international/>

Kilohana Academic Support Services

Mookini Library, Room 123
(808) 932-7287
<https://hilo.hawaii.edu/kilohana/>

Kipuka Native Hawaiian Student Center

Portable Building 12, Room 8
(808) 932-7418
<http://kipuka.uhh.hawaii.edu/>

Edwin H. Mookini Library

Circulation Desk and Hours: (808) 932-7286
Reference Desk: (808) 932-7296
Library Administration: (808) 932-7280
<http://library.uhh.hawaii.edu/>

Medical Services and Women's Health Clinic

Campus Center, Room 212
(808) 932-7369
<https://hilo.hawaii.edu/studentaffairs/health/>

Minority Access and Achievement Program (MAAP)

Student Services Center, Room E-213
(808) 932-7463
<https://hilo.hawaii.edu/studentaffairs/maap/>

Native Hawaiian Serving Institutions Program (see Kipuka)

(808) 932-7418
<https://hilo.hawaii.edu/catalog/nhsi>

New Student Programs

Student Services Center, Room E-102
(808) 932-7384
<https://hilo.hawaii.edu/nsp/>

Pacific Internship Programs for Exploring Science (PIPES)

(808) 932-0705
<https://hilo.hawaii.edu/uhintern/>

Registrar

Student Services Center, Room E-101
(808) 932-7447 or (808) 932-7634
<https://hilo.hawaii.edu/registrar/>

Student Affairs

Student Services Center, Room W-306
(808) 932-7445
<https://hilo.hawaii.edu/studentaffairs/>

Student Organizations

Campus Center, Room 210
(808) 932-7365
<https://hilo.hawaii.edu/campuscenter/>

Student Support Services Program (SSSP)

Student Services Center, Room E-213
(808) 932-7475
<https://hilo.hawaii.edu/studentaffairs/sssp/>

Study Abroad

Center for Global Education and Exchange
Portable Building 9, Room 6
(808) 932-7489 / (808) 932-7488
<https://hilo.hawaii.edu/studyabroad/>

UH Hilo Mission, Vision, and Strategic Plan

<https://hilo.hawaii.edu/strategicplan/finaldraft.php>

University Concierge

(808) 932-7799
<https://hilo.hawaii.edu/campusinfo/>

Upward Bound



Business Education Building and Computing Center (lower floor)
(808) 932-7517

<https://hilo.hawaii.edu/academics/ub/>

Women's Center

Student Services Center, Room E-223
(808) 932-7381

<https://hilo.hawaii.edu/studentaffairs/womenscenter/>

Admissions

UH Hilo Admissions Office

Zachary D. Street

Director

Student Services Center

200 W. Kāwili Street

Hilo, HI 96720-4091

Tel: (808) 932-7446 or 1-800-897-4456

Fax: (808) 932-7459

Email: uhhadm@hawaii.edu

Website: hilo.hawaii.edu/admissions/

Admission Requirements for Undergraduates

Application and admission information may be obtained from high school counselors in Hawai'i, from the Admissions Office, or the University's Web site. The University of Hawai'i system application form is used by all campuses in the UH system. For students applying to a degree program, applications and all supporting documents must be received by July 1 for Fall semester admission and December 1 for Spring semester admission. International applicants should apply by June 1 for Fall semester admission and November 1 for Spring semester admission. Complete applications include a \$50 application fee; 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 system application. The \$50 application fee is non-refundable and required each time the student applies. Students accepted to degree programs are called "classified" students.

All applications and fees are valid for a single semester only. Acceptance does not imply that on-campus housing and/or financial aid are 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.

Admission to the University is based primarily on high school or college prep courses completed, grade point averages, and test scores. Academic criteria are outlined in the sections that follow.

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/or the student will be subject to the Student Conduct Code, which may result in disciplinary action.

Admission may be denied if previously documented actions or behavior affected the safety of others.

Additional Admissions Information

- Residency Regulations for Tuition Purposes
- Admission Procedures
- Admission of First-Time Freshmen
- Admission of Transfer Students
- Admission of International Students
- Admission of Returnees
- Admission of Unclassified, Non-degree Students
- Admission of Auditors
- Running Start/Early Admission Program
- Admission to Summer Session
- Admission to Agriculture Development Program
- Information for Admitted Students
- Profile of Admitted Freshmen Students 2016

Residency Regulations for Tuition Purposes

Students who do not qualify 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 residency status will be made prior to enrollment. 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 clear and convincing evidence to the residency officer that proves otherwise.

Some of the more pertinent University regulations follow. For additional information or interpretation, contact the residency officer in the [Admissions Office](#). The complete rules and regulations are available on the right sidebar.

Definition of Hawai'i Residency

A student is deemed a resident of the State of Hawai'i for tuition purposes if the student (18 or older) or the student (under 18) and his/her parents or legal guardians have:

1. Demonstrated intent to permanently reside in Hawai'i (see below for evidences);
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 your legal residency, the following evidence applies:

1. Filing Hawai'i resident personal income tax return.
2. Voting/registering to vote in the State of Hawai'i.

Other evidence, such as permanent employment and ownership or 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 in making a residency determination include:

1. The 12 months of continuous residence in Hawai'i shall begin on the date upon which the first overt action (see evidences) is taken to make Hawai'i the permanent residence. Residence will be lost if it is



interrupted during the 12 months immediately preceding the first day of instruction.

2. Residency in Hawai'i and residency in another place cannot be held simultaneously.
3. Presence in Hawai'i primarily to attend an institution of higher learning does not create resident status. **A nonresident student enrolled for 6 credits or more during any term within the 12 month period is presumed to be in Hawai'i to attend college. Such periods of enrollment cannot be applied toward the physical presence requirement.**
4. The residency of unmarried students who are minors follows that of the parents or legal guardian. Marriage emancipates a minor.
5. 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, provided that Hawai'i is claimed and maintained as the person's legal residence.

Board of Regents 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 during the period such personnel are stationed in Hawai'i on active duty.
2. Members of the Hawai'i National Guard and Hawai'i-based Reserves.
3. Full-time employees of the University of Hawai'i and their spouses and legal dependents.
4. East-West Center student grantees pursuing baccalaureate or advanced degrees.
5. Hawaiians, descendants of the aboriginal peoples that inhabited the Hawaiian Islands and exercised sovereignty in the Hawaiian Islands in 1778.

Citizens of an eligible Pacific Island district, commonwealth, territory, or insular jurisdiction, state, or nation which does not provide public institutions that grant baccalaureate degrees may be allowed to pay 150% of the resident tuition.

Misrepresentation

A student or prospective student who provides incorrect information on any form or document intended for use in determination of residency status for tuition purposes will be subject to the requirements and/or disciplinary measures provided for in the rules and regulations governing residency status.

Appeal Process

Residency decisions may be appealed by contacting the residency officer for information on how to initiate an appeal.

Admission Procedures

Prospective students should do the following:

1. File an official application for admissions and submit the \$50 application fee by July 1 for Fall semester and December 1 for Spring semester. International applicants must file by June 1 for Fall semester and November 1 for Spring semester.
2. Forward official transcripts from your high school if you have not

attended college before, or if you have completed less than 24 semester credit hours. For students with fewer than 24 college credits completed, ACT or SAT scores will be required if the high school academic GPA is less than 3.0.

3. If you have attended college, forward official transcripts from each institution you have attended.
4. If you are interested in receiving financial assistance, please request a financial aid application or go to the [FAFSA website](#) and file by February 1. (See the [Financial Aid](#) section of this catalog for more details.)
5. In order to receive on-campus housing you should submit your Student Housing Application by March 1. Acceptance to the University does not guarantee on-campus housing. (See the [University Housing](#) section of this catalog for more details.)

Admission of First-Time Freshmen

Students applying for admission directly from high school as freshmen are advised to submit official high school transcripts or the General Education Development high school equivalency records, scores of the American College Test (ACT) or the Scholastic Aptitude Test (SAT), and recommendations from school officials.

Admission from high school requires the following:

- 3.0 academic GPA in 17 units to include 4 English, 3 Math (including Algebra II), 3 Science and 7 college-prep electives (including social studies, language, and additional math and science)
- Submission of ACT or SAT scores is required for applicants with an academic GPA below 3.0 and is recommended for applicants for advising and placement purposes
- GPA below 3.0 considered on a sliding scale with test scores

Applicants denied admission may reapply as transfer students after satisfactorily completing 24 semester hours of transferable courses at another regionally accredited college or 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 from outside the UH system 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 with a minimum GPA of 2.0 will be evaluated for transfer on the basis of their college transcripts.

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 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. Students who do not submit final, official college transcripts will not be permitted to register for classes.



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.

Transfer Credit

Coursework eligible for transfer credit must be of baccalaureate-level and must be from regionally accredited institutions if from the U.S. or from nationally recognized institutions if from a foreign country. Grades in these courses must be "C-" or above to transfer, except for courses completed at other campuses in the University of Hawai'i system (for which any passing grade will be accepted). Students transferring with any work done more than ten years prior to their admittance to UH Hilo may find such work non transferable by the individual academic department.

To complete an evaluation, the Admissions Office must be in possession of the previous school's catalog, bulletin, handbook, or other institutional document which describes the courses completed. Students may be asked to submit course descriptions from previous colleges attended.

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.

Students transferring into UH Hilo with a transferable A.A. degree from an institution accredited by a U.S. regional accreditation agency will be exempted from the General Education requirements, unless specific course requirements are needed for a given major or specialty. The A.A. degree must have been completed prior to initial matriculation to UH Hilo.

Students from within the UH system, who have six credits or fewer to complete their University of Hawai'i community college A.A. degree, may transfer to UH Hilo and be exempt from the UH Hilo General Education requirements **providing the community college A.A. degree is completed in the first semester at UH Hilo.**

Students transferring into UH Hilo from a UH system community college in Fall 2011 or later and who have completed the basic/foundation requirements at their previous campus will be exempt from the UH Hilo General Education basic requirements; similarly, such students who have completed the area/diversification requirement at their previous campus will be exempt from the UH Hilo General Education area requirements. See the UH system [Memorandum of Agreement for Transfer of General Education Core Requirements \(May 2010\)](#) among UH system campuses.

However, all students must complete the UH Hilo Integrative requirements in Writing Intensive, Hawaii Pan-Pacific, and Global and Community Citizenship, as well as all major and other UH Hilo requirements.

All other transfer students must fulfill the General Education requirements appropriate to their major and degree as stated in this catalog.

Admission of International Students

International students may apply to the University of Hawai'i at Hilo either as a graduate from high school or as a transfer student from another college or university. International applicants must fulfill all requirements for admission as well as comply with the regulations of the

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8:18am**

United States Department of State and the U.S. Department of Homeland Security.

All documents, forms and/or test scores, should be received by June 1 for the Fall semester and November 1 for the Spring semester. Applicants who require the F-1 or J-1 student visa are encouraged to submit complete applications by May 1 for Fall and October 1 for Spring.

The online application, or the University of Hawai'i system application form, is required. International applicants who require the F-1 or J-1 student visa must also submit the Supplemental Information Form. The financial support requirement is \$36,000 US. This amount includes an estimated cost for health insurance which is required of all international students enrolled at the University.

Applicants must present evidence of having completed secondary school. Such evidence may include an official copy of secondary school academic records, and/or certificates of the results of qualifying examinations and certified true copies of mark sheets. All documents must be in English. For applicants applying from international high schools, admission is based on above average performance (75%) in high school and/or qualifying examinations. For applicants applying from international colleges or universities, admission is based on a 70% average. Students who have attended college less than one year should also submit their secondary school academic records. Course descriptions in English are required to complete the transfer credit evaluation.

Applicants whose native language is not English may choose to submit the results of the Cambridge, EIKEN, IELTS, SAT/ACT, TOEFL or an equivalent national examination taken in their home country. Information about the TOEFL may be found at www.toefl.org, at local United States embassy or consulate offices, or by writing directly to Test of English as a Foreign Language, Box 899, Princeton, New Jersey 08540, USA. Applicants who meet the academic admission requirements and have a test of English score of TOEFL 500/equivalent may be admitted directly into a degree program at the University. Applicants who meet the academic admission requirements and have an equivalent score below 500, as well as those who choose not to submit test scores, may be admitted first to the UH Hilo [English Language Institute \(ELI\)](#).

During orientation, at UH Hilo non-native speakers of English take the English Language Placement Assessment and the Writing Placement Assessment. The results guide and inform course selection prior to registration. For students admitted to the ELI, the assessment results determine the placement level in English as a Second Language (ESL) courses. ELI students are registered in the ESL courses prescribed for them, and, they may enroll in up to two regular University courses with the consent of both the ELI director and the course instructor.

The United States government and the State of Hawai'i do not grant financial aid to F-1 or J-1 students. There are a limited number of UH Hilo institutional scholarships available to international students. After enrollment, those who establish a record of academic excellence may be eligible to apply for available institutional aid. Students from COFA Pacific island nations are eligible for U.S. federal financial aid.

Admission of Unclassified, Non-degree 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 degree or a Board of Regents-approved certificate 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 and WUE students are not eligible for unclassified, non-degree status. Students who are on academic dismissal or suspension do not qualify under this status. Contact the [Admissions Office](#) for more information.

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 by the application deadline. This includes a \$50 application fee (except when a student is away from the University for one semester only, an application fee is not required). If the student enrolled at another college or university in the interim, he/she must reapply as a transfer student. Contact the [Admissions Office](#) for more information.

Admission of Auditors

Persons wishing to participate in University courses for informational instruction only may apply by completing the auditor's application form no earlier than the first day of instruction. Permission of the instructor is required, and standard tuition and fees apply. Auditors receive no credit, and they do not take course examinations. For more information, see [Classification of Students](#) in the [Academic Regulations](#) section of this Catalog.

Running Start/Early Admission Program

The Running Start/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 process. After consultation with their high school counselor and the University Admissions staff, qualified candidates may be admitted on a part-time, non-degree status. Continuation in the Early Admission Program depends upon the maintenance of a 2.0 grade point average at the University and approval of the University in consultation with the high school counselor. Federal financial aid is not available for Running Start/Early Admission students.

A student seeking Running Start/Early Admission should submit the following items to the Admissions Office:

- an application for admission to the university;
- a letter of recommendation from the principal, teacher, or the guidance counselor;
- an official high school transcript and
- scores from the Scholastic Aptitude Test (SAT) or American College Testing (ACT) exam.

Students planning on attending a second or subsequent semester must re-apply by submitting:

- an application for admission;
- a new letter of recommendation from the principal, teacher, or the guidance counselor and
- a new official high school transcript.
- New test scores from the SAT or the ACT are not necessary unless the student has retaken the test and new scores are available.

Admission to Summer Session

Admission to Summer Session is open to high school graduates and individuals 18 years of age or older. Applicants are not required to submit high school transcripts/college entrance test scores or college transcripts. Admission to the Summer Session does not constitute admission to a regular semester as a degree candidate.

High school sophomores, juniors, and seniors are encouraged to enroll in summer classes. Sophomores and juniors are asked to work with their high school counselor to complete the Running Start application and submit it to the [Admissions Office](#)

All 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 affect their admission to college in the future. Students whose native language is not English must demonstrate English proficiency.

Graduate-level applicants are required to send in college transcripts to confirm receipt of a baccalaureate degree. Applicants wishing to enroll in particular graduate-level courses may be subjected to remit college transcripts from each of the colleges previously attended.

Admission to Agriculture Development Program

The [College of Agriculture, Forestry & Natural Resource Management \(CAFNRM\)](#) offers an Agriculture Development Program 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 contact the [College of Agriculture, Forestry and Natural Resource Management](#) for further information.

Information for Admitted Students

Partial Advance Tuition Deposit

Newly accepted students will be asked to submit a \$60 tuition deposit if they intend to enroll at the University of Hawai'i at Hilo. The deposit is non-refundable, cannot be transferred to another campus, and applies only for the term the student was accepted. Students who are experiencing financial difficulty and who are awaiting financial aid should contact the Admissions Office in writing to secure their enrollment for the following term.

Student Health Insurance

Health insurance is highly recommended for all students. A [University of Hawai'i endorsed student health insurance plan](#) is designed for students. Detailed information about this insurance plan including costs and an application are available online. Applications may also be picked up from the Student Medical Services Office (Campus Center 212).

International students in F-1 Student or J-1 Exchange Visitor status must have adequate health and accident insurance each semester. F-1 Students must present proof of their insurance to the Director of International Student Services prior to registration. J-1 Exchange Visitors must present such proof to their Responsible Officers.



Students who do not have private health insurance may qualify for State of Hawai'i health insurance called Med-QUEST. Qualifications for this free, limited insurance plan are based on income and assets. Detailed information including an application is available online on the [Med-QUEST website](#).

Medical Clearance

In accordance with Hawai'i State law, all newly-enrolled students must submit the following:

1. A completed [Mandatory Health Requirements form](#) (mailed from the Admissions Office with the student's acceptance letter);
2. Results of a tuberculin skin test (PPD) not more than 12 months prior to attending first day of classes and if the PPD is positive, a chest x-ray performed not more than 12 months prior to attending first day of classes (note: tuberculin tests and chest x-rays performed in foreign countries are not acceptable for clearance);
3. If born after 1956, proof of immunity to measles (rubeola), mumps, and rubella (MMR). Documentation of 2 MMR vaccinations or a titer is required.

These requirements must be met before the start of classes. Tuberculin skin tests (TB), MMR and other immunizations are available at the Student Medical Services on campus (costs are on the Student Medical Services website).

Note: TB tests and chest x-rays performed in foreign countries are not acceptable for clearance.

Writing Placement

Beginning Fall 2011, students' SAT-EBRW, SAT-W score or ACT score will be used for placement into ENG 100 Composition I (3) or ENG 100T Composition with Tutorial (3). If you do not have an SAT or ACT score and you have not yet earned credit for ENG 100 Composition I (3) (or the equivalent), you will need to take the Writing Placement Assessment before you are able to register for ENG 100 Composition I (3) or ENG 100T Composition with Tutorial (3).

More information can be found at: [UH Hilo Writing Placement Assessment](#)

English Proficiency Test

All non-native speakers of English are required to sit for the Writing Placement Assessment and the English Proficiency Placement (EPT) to determine if supplemental ESL classes are required. More information can be found on the [English Language Institute's Placement Assessments webpage](#).

Math Placement

UH Hilo offers a wide range of math courses for entering students. Completing the [Math Placement Assessment](#) is required to enroll in most Math courses. The Math Placement Assessment is an online assessment which should be taken well ahead of registration.

Students with questions about their placement score should meet with an advisor or representative from the Math Department during orientation.

New Student Orientation

[New Student Orientation](#) is offered during the week before classes begin in the Fall and Spring semesters. Students enrolling at UH Hilo for the first time are provided with an extensive program of academic and social activities designed to facilitate their adjustment to the University and to the Hilo community. During orientation, academic advisors assist new students with course selection and registration. Additional orientation activities and services help students to become more knowledgeable about their campus, to become familiar with the diverse opportunities available to get involved in campus life, and to become a member of our campus community.

For students entering in the Fall semester, UH Hilo conducts early registration and academic advising sessions periodically throughout the summer. During these sessions, students learn about degree programs and requirements as well as receive assistance with selecting and registering for courses. Students attending these sessions are expected to participate fully in our New Student Orientation program as well.

Students enrolling for the first time at UH Hilo are strongly encouraged to participate in New Student Orientation. During orientation, new students will be able to build a solid foundation to ensure a successful collegiate experience and to make the essential support connections to fellow students, faculty, and staff. For more information, contact the orientation coordinator, (808) 932-7384.

Tuition, Fees, and Financial Aid

Tuition and fees are charged according to the number of semester hours in which the student enrolls. Classified students are charged the full-time tuition rate if they are enrolled for **12 or more credits** per semester. Unclassified students are **charged per credit hour** for all the courses in which they enroll, and are charged undergraduate tuition rates for courses numbered between 001 and 499V, and graduate tuition rates for courses numbered 500 or higher. (See the distinction between [classified and unclassified students](#).)

In accordance with University concurrent enrollment policy, students enrolling at multiple campuses during the same semester pay the applicable tuition rate at each campus. Students who audit courses 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](#)
- [Fees](#)
- [Payments](#)
- [Financial Obligations to the University](#)
- [Tuition and Fees Refund Policy](#)
- [Financial Aid](#)

Tuition Schedule

Note: Tuition schedules are provided here for convenience and do not constitute an official declaration of University of Hawai'i tuition information. For official tuition schedules please refer to the [Executive Policy E6.201](#).



2017-2018 UH Hilo Tuition ¹

Per credit hour and full time semester tuition schedule.

PCH = Per Credit Hour, FT = Full Time, n/a = Not Available.

Regular Semester ²

Regular Semester 2016-2017	Resident PCH	Resident FT	Non-Resident PCH	Non-resident FT
Undergraduate	\$ 300	\$ 3,600	\$ 840	\$ 10,080
Graduate	479	5,748	1,097	13,164
Graduate Nursing	781	9,372	1,558	18,696
Pharmacy	984	11,808	1,690	20,280

Summer 2018

To be announced in the spring semester preceding each summer session.

Notes

- All students are subject to campus-based student fees not shown here.
- Full-time (FT) tuition applies to undergraduate students enrolling for 12 or more credits at UH Manoa (UHM), UH Hilo (UHH), and UH West Oahu (UHWO). At the Community Colleges (UHCC), tuition is charged on a per-credit basis for all enrolled credits effective 2001-02. In accordance with University concurrent enrollment policy, students enrolling at multiple institutions/campuses during the same term pay the application rate at each campus. Unless a special tuition schedule applies, regular day tuition applies to any credit course offered throughout the year for which a General Fund appropriation is authorized. Undergraduate resident and nonresident students enrolled in nursing, dental hygiene, business, and other UHCC health programs also pay a professional fee (see separate fee schedule). Undergraduate/Graduate resident and nonresident students enrolled in the architecture program at UHM also pay a professional fee (see separate fee schedule). Undergraduate/Graduate resident and nonresident students enrolled in the architecture program at UHM also pay a professional fee (separate fee schedule).
- At all campuses, tuition is not charged for credit courses subsidized under contractual agreements (students may be subject to administrative fees). In accordance with University concurrent enrollment policy, students enrolling at multiple institutions/campuses during the same term pay the applicable tuition at each campus. Professional fees may be required for selected undergraduate programs. See respective campus programs for details.

Approved by Board of Regents: October 26, 2011; Revised May 21, 2015, Summer by the President: February 13, 2015.

Fee Schedule

2017-2018 Fee Schedule for All Enrolled

Students

Fee	1 or more credits
Student Publications	28.50
Student Activities	28.50
Student Association	28.50
Campus Center	29.50
Media Broadcasting	24.00
Student Health	7.00
Student Life Center	78.00
Total:	224.00

Summer 2018 Fees

- Student Life Center Fee: 35.00

Payments

Students are not sent a bill. For registration to be official, however, all tuition and fees must be paid at time of registration.

Tuition and fee payments can be made by:

- MyUH Online:** Pay by MasterCard, VISA, or any credit card accepted by the Discover Network (Discover, Diners, and JCB) pinless debit card or web check (checking or savings account).
- Registered students may sign up for an **installment payment plan** for the fall and spring terms. Log on to [MyUH](#) for more details. The payment plan is not available during the summer terms.
- Mail:** Make checks payable to "University of Hawai'i at Hilo" and mail to: UH Hilo Cashier's Office, 200 W. Kawili St., Hilo, HI 96720. Mail payments must be **received** by the appropriate payment deadline. You should allow a minimum of 5 days for delivery prior to the deadline. Do not use Campus Mail. To ensure proper crediting to your account, write your UH number on the bottom left corner of the check.
- In Person:** Pay by cash, check, money order, or cashier's check at any campus business office.
- Parents and Other Authorized Users:** If you have been set up as an Authorized User, you may logon to the [Authorized User site](#) with your email address and password provided to you.

Note: The University of Hawai'i does not accept wire transfers (EFT) or e-mail payments from individual students.

UH Hilo offers an Installment Payment Plan for those students who are interested in this option.

Current term information can be found at the [Cashier's Office website](#).

Partial Advance Tuition Deposit

All new, transfer, and returning classified students are required to pay a partial advance tuition deposit of \$60.00 (\$500.00 for College of Pharmacy). Scholarship or financial aid recipients are not exempt from this payment. Students who are experiencing financial difficulty, however, and are awaiting financial aid should contact the Admissions Office in writing to secure their enrollment for the following term. This partial advance tuition deposit is applied at registration time toward tuition for that semester. The payment is nonrefundable and



nontransferable if the student does not register (College of Pharmacy advance tuition deposit is not transferable to other programs). Continuing classified students are not required to make the partial advance tuition deposit.

Returned Checks

Checks tendered to the University of Hawai'i or any department therein, and returned to the maker's bank for any reason will result in a \$25.00 charge and a "hold" will be placed on the account. **Do not stop payment on checks.** A stop payment on a check is considered a returned check and is not acknowledged as an official drop from courses or withdrawal from the University.

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 [A8.731 Delinquent Financial Obligations](#) owed the University of Hawai'i, issued by the Board of Regents, is on file in the Business Office or online.

Tuition and Fees Refund Policy

Tuition

Percent Refund	Refund Policy
100%	If, on or before the last day of late registration, complete withdrawal, change from full-time to part-time status, or change from one tuition rate to another tuition rate is made.
50%	If, on or before the last day of the third week of instruction, complete withdrawal, change from full-time to part-time status, or change from one tuition rate to another tuition rate is made.
0%	If, after the third week of instruction, complete withdrawal, change from full-time to part-time status, or a change from one tuition rate to another tuition rate is made.

Fees

Percent Refund	Refund Policy
100%	If, on or before the last day of late registration, complete withdrawal is made from the UH system.
0%	If, after the last day of late registration, complete withdrawal is made.

Financial Aid Information

For information, please contact:

Financial Aid Office

University of Hawai'i at Hilo
200 West Kāwili Street
Hilo, HI 96720-4091

Tel: (808) 932-7449; **Fax:** (808) 932-7797

Email: uhhfao@hawaii.edu

Web: hilo.hawaii.edu/financialaid/

The office is located in the front lobby of the Student Services Building.

Office Hours: Monday-Friday, 7:45 a.m. to 4:30 p.m.

Counseling Hours by Appointment: Monday-Friday, 9:00 a.m. to 2:00 p.m.

The purpose of this section is to provide an overview of financial aid and the policies and procedures that must be followed to receive financial aid at the University of Hawai'i at Hilo. Detailed financial aid policies can be found in the annual "Guide to Financial Aid" available from the Financial Aid Office and on our website.

Financial Aid includes a number of programs funded by federal and state governments, UH Hilo, educational institutions, and private organizations for the purpose of assisting individuals interested in obtaining an education but who do not have the financial resources to do so. Aid programs consist of scholarships, grants, work programs, and loans.

- [Steps Necessary to Receive a Financial Aid Award](#)
- [Verification of Application Information](#)
- [Financial Aid Satisfactory Academic Progress](#)
- [Withdrawing From Classes](#)
- [State of Hawai'i Financial Aid](#)
- [Federal Aid Programs](#)
- [Scholarships](#)
- [Other Listings Of Financial Aid](#)

Steps Necessary to Receive a Financial Aid Award

To be considered for financial aid, you must complete the Free Application for Federal Student Aid (FAFSA). You are strongly encouraged to complete the FAFSA via the Internet at www.fafsa.gov. On the FAFSA, you should list the University of Hawai'i at Hilo, code number **001611**, as one of the schools to receive your application information. UH Hilo will receive your data electronically from the United States Department of Education and will then be able to calculate your eligibility. The priority filing date (submitted via the Web to the federal processor) is March 1. Remember, grant funds are limited and expended quickly. File on time to ensure full consideration. Also, you must be accepted for admission to the University as a classified student before a financial aid award can be issued.

Upon receipt of the FAFSA results in the Financial Aid Office, a Financial Aid Award notice will be sent to you. You must review the award via the MyUH Portal and accept or decline the award within three weeks of the date of the notice. In addition, other documents may be requested from you at this time.

Verification of Application Information

Your application for federal student aid may be selected for a process known as verification. This means that the Financial Aid Office must verify the accuracy of the information that you submit on the FAFSA. If selected, you must submit a verification worksheet, federal income tax data from the IRS, and/or other supporting documents. Until your information has been verified, a financial aid award cannot be issued to you.

You will be notified via email if you have been selected for verification. You will normally have 60 days to submit the required verification documents. Failure to submit the verification documents will result in your financial aid file being closed and no award being issued. If any of the data reported on the FAFSA is found to be incorrect, your financial aid eligibility will be recalculated.



Financial Aid Satisfactory Academic Progress

Federal student aid regulations require all educational institutions administering funds to ensure that financial aid recipients are making satisfactory academic progress toward their educational objectives. The regulations apply to all students receiving federal, state and institutional financial aid funds. Questions regarding this policy should be directed to a financial aid office staff member.

Satisfactory Academic Progress has been defined as follows:

I. Satisfactory Progress Levels Defined

1. Satisfactory Academic Progress will be monitored after spring grades are posted. To be making satisfactory academic progress a student must maintain the required cumulative grade point average, attain a 75% completion rate, and not exceed the normal completion time.
2. Students failing to maintain satisfactory academic progress will be placed on **Financial Aid Suspension**. Such status will make students ineligible for financial aid until such time as the satisfactory academic progress requirements are met.

During the period of Financial Aid Suspension, students may (unless placed on Academic Dismissal) attend UH Hilo without financial aid. It will be the student's responsibility to secure other financial resources during this period.

II. Satisfactory Progress Requirements

1. **Maintenance of a minimum UH Hilo cumulative grade point average.**
 - For undergraduates, post-baccalaureate students, and pharmacy students a 2.00 UH Hilo GPA is required.
 - For graduate students, a 3.00 UH Hilo GPA is required.
2. **Attainment of a 75% completion rate (pace) towards educational objective for hours attempted at UH Hilo.**
 - Students must complete and pass 75% of all hours attempted at UH Hilo. A student's completion rate is calculated by dividing hours earned by hours attempted. Grades of F, W, I, NC and repeated courses count as hours attempted. Hours declared in academic bankruptcy count as hours attempted.
3. **Normal Completion Time**
 - Undergraduate students will be eligible for financial aid for a maximum of 160 attempted credit hours. Transfer hours are included in the total number of credit hours attempted.
 - Graduate students will be eligible for financial aid for a maximum of 45 attempted credit hours (adjustments can be made according to degree program requirements). Transfer hours are included in the total number of hours attempted.
 - Pharmacy students will be eligible for financial aid for a maximum of 197 attempted credit hours. Transfer hours are included in the total number of hours attempted.

III. Satisfactory Progress Appeal Process

A student who is placed on Financial Aid Suspension may appeal the denial of financial aid. The appeal must be made by submitting a signed

written letter to the Director of Financial Aid no later than 10 days after receipt of the notice of Financial Aid Suspension. The appeal must include information regarding why satisfactory progress was not made and what has changed that will allow the student to demonstrate satisfactory progress in the next enrollment period. The appeal will be directed to the Appeals Committee whose decision will be final. The decision will be based on demonstration of one of the following situations:

1. Error of fact;
2. Mitigating circumstances. Circumstances considered may include illness or injury, family difficulties, interpersonal and college adjustment problems.

If the appeal is granted, financial aid will be continued for a Probationary period and will contain an Academic Plan that must be satisfied. The student will be advised via email of the action on the appeal.

Withdrawing From Classes

It is the responsibility of any student wishing to withdraw from UH Hilo to follow the official withdrawal process with the University. Students wishing to withdraw from the University should contact the Records Office to initiate the withdrawal process. The University's policy on [complete withdrawal](#) may be found in this Catalog.

Withdrawal from all classes during a term may result in a change in institutional charges for the term. Please consult this Catalog for the complete [Tuition and Fees Refund Policy](#).

Withdrawal from all classes during a term may also result in a change in the financial aid award for that term. Federal financial aid regulations have created a Return of Title IV Funds Policy. This policy states that students who **withdraw or cease attendance before the 60 percent point of the term** (as calculated by the number of days in the term) will have their financial aid award reduced.

Upon withdrawal, the Financial Aid Office will calculate, from the number of days in the term and the number of days of the term that the student was enrolled prior to withdrawal, the percentage of the term that the student completed. This percentage will be applied to the amount of aid received for the term with the student being able to retain only the amount of aid for the percentage of the term actually completed. The unearned portion of the financial aid award must be returned to the federal, state, and institutional programs that have been awarded. If excess financial aid funds have been refunded to the student, a portion of these funds may also need to be returned to the financial aid programs awarded. This may result in large sums being owed to both UH Hilo and federal, state, and institutional financial aid programs.

Students considering withdrawal from classes should consult the Financial Aid Office prior to initiating the withdrawal process. Withdrawal can have a significant impact on institutional charges, a current financial aid award, as well as future financial aid eligibility (see the Satisfactory Academic Progress Policy). Complete financial aid regulations concerning withdrawals and the Return of Title IV Funds Policy may be obtained from the Financial Aid Office.

Unofficial Withdrawals

Students who cease attending all classes during a term will be subject to the Return of Title IV Funds Policy outlined above. The portion of unearned aid will be based on the last date of documented class attendance. In all cases, official withdrawal procedures should be



followed.

Also, students who fail all classes during a term will be reviewed to determine if the failure was due to not attending the class. Students who stopped attending classes before the end of the term will be treated as an unofficial withdrawal.

State of Hawai'i Financial Aid

UH Hilo Opportunity and Achievement Grants

Opportunity and Achievement Grants may be 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 classified student at least half-time.

Opportunity Grants 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.

Application forms for Achievement Grants are available at the following offices:

- College of Arts and Sciences
- College of Agriculture, Forestry, and Natural Resource Management
- Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language
- College of Business and Economics
- College of Pharmacy
- Athletics

Opportunity Grants for Students of Hawaiian Ancestry

Students of Hawaiian ancestry from outside Hawai'i automatically qualify for residency. In addition, there are a limited number of Opportunity Grants available for students of Hawaiian ancestry.

Application forms for these need-based Opportunity Grants are available at the respective UH Hilo offices as follows:

- Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language
- Hawaiian Leadership Development/Student Support Services/Minority Access and Achievement Program

Pacific Islander Scholarship

Effective with the Fall 2007 semester, UH Hilo has established a Pacific Islander Scholarship. To be eligible for this scholarship, students must:

- be accepted by the UH Hilo Admissions Office with a residency status of Pacific Islander Non-Resident Exempt. The residency status is reflected on the acceptance letter issued by the Admissions Office
- Demonstrate financial need. Financial need is demonstrated by applying for financial aid, using the FAFSA (Free Application for Federal Student Aid).
- Be a new student entering UH Hilo in Fall 2007 or later, or returning to UH Hilo in Fall 2007 or later after taking a break from enrollment at UH Hilo.
- Enroll as a classified student in either an undergraduate, graduate, or post-baccalaureate program.
- Enroll at least half-time (6 or more credits per semester if an undergraduate).

Students do not need to submit an application form except for the FAFSA; eligible students automatically will be considered for this scholarship.

International Students

A limited number of Achievement Grants may be available to international students. Contact the Center for Global Education and Exchange at (808) 932-7489 or (808) 932-7488 or fax (808) 932-7487.

Students with Disabilities

The University Disability Services Office offers a Scholars with Disabilities Achievement Grant for UH Hilo student's with a 3.5 GPA and with a qualifying disability. Application forms are available from the University Disability Services Office: V (808) 932-7623, TTY (808) 932-7002, or shirachi@hawaii.edu.

Federal Aid Programs

UH Hilo participates in the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Direct Loan, Federal Perkins Loan, and Federal Work-Study Programs. All programs require the annual submission of the Free Application for Federal Student Aid (FAFSA).

Veterans Benefits

Certain instructional units at UH Hilo are approved for Veterans Administration (VA) educational benefits. Eligible students may receive financial assistance as provided by the Veterans Readjustment Benefit Act and the War Orphans Assistance Act.

Veterans who are registered for the first time with UH Hilo using veterans benefits must provide a current Certificate of Eligibility to the Office of the Registrar. Dependents of disabled veterans and survivors of veterans whose injury or cause of death was service-related, who register for the first time under any provision of the Federal Veterans Bill, must present their Certificate of Eligibility and must have their VA File number.

All veterans must contact the Office of the Registrar after completing each semester's registration in order to continue receiving benefits by completing their Veteran Enrollment Verification Form. This form must be submitted each semester and can be found online [Veteran Forms](#). The Office of the Registrar must also be contacted if any registration changes are made after submission of the Veteran Enrollment Verification Form. Any changes not reported may result in repayment of VA educational benefits issued.

Veteran enrollment will be continuously submitted to the Department of Veteran Affairs through the semester, no more than 30 days after our institution is notified of enrollment or disenrollment. The Department of Veteran Affairs makes the final decision on amounts to be paid to the student and the institution on behalf of the student.

If a student intends to use tuition assistance, please be sure to review program policies prior to submitting any paper work for that semester. All programs available to veterans/children of veterans are administered through the UH Hilo Office of the Registrar. If you are eligible for assistance through these programs, please contact the [Office of the Registrar](#). Questions concerning eligibility may be directed to the Veterans Administration by calling 1-888-GIBILL1 (1-888-442-4551).



AmeriCorps National Service

In exchange for a year of service, AmeriCorps members receive an education award to help pay off student loans or help finance their education. During term of service, AmeriCorps members earn a living allowance and may qualify to defer their existing student loans. To receive AmeriCorps NCCC applications or more information about opportunities with AmeriCorps, please call the AmeriCorps hotline at 1-800-942-2677, ext (TDD 1-800-833-3722) or visit www.cns.gov.

Scholarships

The purpose of the Scholarship Program at UH 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.

A complete listing of scholarship opportunities and resources is published annually by the Financial Aid Office. The Scholarship Opportunities publication and application form is available at the [Financial Aid Office website](#). The application deadline for most funds is March 1.

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. You may also wish to explore the Internet for scholarship opportunities:

University of Hawai'i: www.hawaii.edu/admissions/aid.html

Others:

- www.finaid.org
- www.fastweb.com
- www.collegeboard.com
- www.studentaid.ed.gov
- www.scholarshipexperts.com

Information about the Hope and Lifetime Learning tax credits can be obtained from the following sources:

- IRS Publication 970, "Tax Benefits for Higher Education"
- www.irs.gov

Academic Expectations and Responsibilities

Develop an academic plan.

Outline your educational goals and objectives, keeping in mind the requirements of your planned degree. Use this to construct a realistic academic plan. In deciding on courses and academic load, carefully consider your level of preparation, as well as any extracurricular commitments and responsibilities.

Read and understand the syllabus for each course you are enrolled in.

The syllabus is more than a listing of course times and material. It also outlines what an engaged and responsible student can expect to learn; describes examination, grading, and student conduct policies; outlines

the permitted use of electronic devices; and informs students how they may contact their professor for additional guidance.

Develop your own set of study skills, and use them regularly.

Learn what study techniques work for you personally. Plan adequate time for studying class material (a useful estimate is at least 3 hours of extracurricular work per lecture hour). Set aside extra time to complete big assignments, such as term papers or presentations. Expect to have material covered at a much faster pace than in high school. Additionally, expect that the pace and difficulty of material will increase as a student progresses from 100-level to 400-level courses.

Come to class prepared.

As a student, it is your responsibility to come prepared to each and every class. This includes completing reading, problem-solving or other assignments prior to the lecture. This also means coming to class mentally prepared, being awake and attentive, and taking useful notes.

Take full advantage of available academic resources.

Attend office hours regularly and get to know your instructors. Frequently visit the [Edwin H. Mookini Library](#) and become familiar with all library services and resources such as reserve materials, article databases, and the extensive book collections (both print and e-books). Be aware of your academic performance throughout the semester, and should you need additional help, advising and tutoring services are available.

Participate in your own education.

Become engaged in your own education. It is your responsibility to ask questions when you don't fully understand course material, and to seek additional help if needed.

Adhere to the UH Hilo Student Conduct Code.

You have a responsibility to familiarize yourself with and adhere to the tenets of the UH Hilo Student Conduct Code. Violations of the Code (e.g. academic dishonesty, disruptive behavior, personal threats) are subject to disciplinary procedures that may include expulsion from the University.

Keep a healthy mind and body.

Excessive stress, fatigue, or unhealthy habits can interfere with your academic success. Be aware of your mental and physical state and how it impacts your performance in class. Counseling services are available, and take advantage of these services in a proactive manner should you be experiencing personal or academic difficulties.

Academic Advising

The importance of obtaining regular academic advising cannot be overstated. Advising is an essential part of educational success and a very important resource designed to help students complete the requirements of the University and the individual majors. Students should consult with a faculty advisor at least once a semester to decide on courses, ensure academic progress toward graduation, and discuss



career options and other educational opportunities provided by UH Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree requirements.

Advising is mandatory for incoming and transfer freshmen for the first two semesters at UH Hilo and are assigned to a professional advisor in the Career and Academic Advising Center.

Non-freshmen are advised by faculty advisors. Faculty advisors are specialists in their subjects and in the major requirements, and they have important information about related graduate programs and employment opportunities in their disciplines. Faculty advisors provide guidance on academic requirements throughout the student's college career.

Exploratory students, students who do not declare a major when entering the University, are designated as "General" students and assigned to a professional advisor in the [Advising Center](#). Advisors assist these students with designing a program of study to meet the General Education requirements, while providing information about possible major fields and academic regulations. These students must declare a major by the attainment of 60 credits.

Registration

Regular Registration

The registration schedule is posted on the [Registrar's Registration Guide](#).

Students cannot register until they have cleared all medical, academic, and financial obligations. Registration is not complete until all tuition and fees have been paid by the payment deadline.

Late Registration

Late Registration begins the first day of the semester or session. 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

UH Hilo students may enroll concurrently at any UH institution. All prerequisites and course requirements apply. Tuition and fees will be assessed for any enrollments at other UH institutions. UH Hilo students who wish to also enroll for courses through UH Mānoa or UH West O'ahu must be admitted to the appropriate university. When applying to UH Mānoa or UH West O'ahu, students should indicate that they wish that campus to be secondary and that UH Hilo is to remain their primary or "home institution".

It is important for UH Hilo students to be aware that they have a "home institution," which is the site of their degree programs, their financial aid awards, and the majority of their coursework. To ensure active UH Hilo student status, students must enroll in at least one class at UH Hilo each Fall or Spring semester. Students who do not maintain active UH Hilo status may be subject to readmission and a change in graduation requirements.

Students should consult the UH Hilo [Admissions Office](#) to determine the transferability of coursework completed elsewhere. Students planning to enroll in courses from other UH campuses are strongly encouraged to file a "[Prior Authorization for Transfer Credits](#)" form with their college deans that notifies the college and the Financial Aid Office of their enrollment status. Students should be aware that:

- The UH Hilo grade point average is based only on work taken at UH Hilo.
- To earn a bachelor's degree at UH Hilo, a minimum of 30 credits must be earned at UH Hilo.
- College of Arts & Sciences, College of Business & Economics, and Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language students must earn a minimum of 25% of the credits required for their major, minor, and/or certificate at UH Hilo.
- Students are discouraged from repeating courses elsewhere that they have already taken at UH Hilo, since the grade at another institution (including within the UH system) will NOT replace the grade earned at UH Hilo. Students should also be sure that they have not already received transfer credit for a course in which they plan to register at UH Hilo, since additional credit will not be awarded. Students can find their transfer evaluation by going to the [STAR Degree Audit website](#). The detailed course evaluations for each campus attended are available in the "transcript" tab in STAR for students.

Upon completion of a course taken outside of the University of Hawai'i system, students must have a copy of their official transcript sent to the UH Hilo Admissions Office. Students taking courses within the UH System will have their course work automatically transferred back to UH Hilo within a few weeks after the grading period is complete. If the courses do not appear in your STAR reports, contact the UH Hilo [Admissions Office](#).

Adding a Course

Students may enroll in (add) any course they're eligible for through the first week of instruction of a Fall, Spring semester or [Summer session](#) (deadlines vary by course). To add a course during the second week of instruction requires the permission of the instructor using the [Registration Override Form](#). The last day to add a class is the same as the last day of late registration as noted on the UH Hilo [academic calendar](#).

Dropping or Withdrawing from a Course

Note: To drop all your UH Hilo classes, please visit the [Complete Withdrawal instructions](#).

Courses may be "dropped" without academic penalty (without receiving a grade of "W" for the course) during the first three weeks of a regular semester. Students may also withdraw from a course from the beginning of the fourth week of instruction until the end of the tenth week of instruction. However, in this case, students will receive a grade of "W" for each official course withdrawal. Students who simply stop attending classes without withdrawing are not officially withdrawn. Those who fail to withdraw officially during the prescribed period risk receiving an "F" grade for such courses. A student who is considering dropping or withdrawing should refer to [Tuition and Fees Refund Policy](#) and [Financial Aid](#) to understand their financial responsibilities.

Complete Withdrawal

Once classes begin, a student can withdraw from his/her last or only class via [MyUH](#) until the Last Day to Drop a Class Online with a "W". Please see the [Academic Calendar](#) for the appropriate corresponding date. After the Last Day to Drop a Class Online with a "W", students must obtain a Complete Withdrawal form from the Office of the Registrar or download from the [Office of the Registrar forms](#) and follow official



procedures. Please be sure to review the Tuition and Fee Refunds schedule to determine the financial implications of doing a complete withdrawal.

For students who completely withdraw *before the end of the third week of instruction*, the courses will not be reflected on their transcript. 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. Tuition and fees will be assessed according to the UH system policy.

Students may completely withdraw through the last day of instruction.

A student who completely withdraws and wishes to return for any subsequent semester may be required to submit an admissions application for re-admission. Students who return to UH Hilo after a single semester break (excluding summer) will be eligible to graduate under the requirements in force when they first entered UH Hilo or any campus of the UH System. Students who stop out for more than one semester will be required to fulfill the requirements in force when they return to UH Hilo.

Students may petition the Dean of their College for an approved leave of absence for unusual circumstances beyond the student's control; an approved leave of absence will allow a student to use the catalog in force when s/he entered UH Hilo or another UH System campus with a break of more than one semester.

A student who completely withdraws without an approved Leave of Absence must reapply for admissions. The student may be required to fulfill the requirements in force upon return to UH Hilo.

Change of Major/College/Classified Status

Classified students who wish to change their major/college should consult their faculty advisor before completing a "Change of Major" form. This form is available from the Office of the Registrar (SSC Rm. E101) or online at the [Office of the Registrar forms](#).

However, **unclassified** students who wish to change to classified status must complete the Common Application Form with the [Admissions Office](#). Graduating students who wish to enroll in future semesters are required to reapply for entry on the Common Application Form. See the [Classification of Students](#) for the difference between "classified" and "unclassified" students.

Classification of Students

The following classifications are used to describe persons attending classes:

Full-time or Part-time Students

Students may register either part-time or full-time. Undergraduate students are full-time if they register for 12 or more semester hours during a Fall or Spring semester, and part-time if they register for fewer than 12 semester hours. Graduate or professional (Pharmacy) students are considered full-time if registered for 6 or more semester hours. In Summer, undergraduate students are full-time if they register for 6 or more semester hours and graduate or professional students are considered full-time if they are registered for 3 or more semester hours.

Classified Students

Classified students are those who have been admitted through the formal selection process and are candidates for a degree or certificate.

Unclassified Students

All students who are not candidates for a degree or certificate or who have not been admitted through the formal selection process are termed "unclassified students." Unclassified students do not qualify for financial aid and pay by the credit hour. Unclassified students who wish to have classified status must apply for admission as a classified student.

Class Standing

Students gain academic standing as follows:

Standing	Description
Freshmen	0-29.99 credits successfully completed ¹
Sophomores	30-59.99 credits successfully completed ¹
Juniors	60-89.99 credits successfully completed ¹
Seniors	90 or more credits successfully completed ¹
Master's students	Graduate students
Doctoral students	Graduate students
PharmD students	Professional students

¹ Updated Fall 2015.

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. Auditors must wait until the **first day of instruction to register**, on a space available basis, and must submit the "Auditor's Form" provided by the Office of the Registrar or online at [Office of the Registrar forms](#). Auditors must present the form in person to the Registrar's office for manual processing.

Course Numbering System

The University of Hawai'i System course numbering system applies to all University of Hawai'i campuses. Portions relevant to UH Hilo are as follows:

- 001-099: Developmental courses not applicable to baccalaureate or higher degree
- 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)
- 501-599: Professional level courses
- 600-699: Typically taken in first year of graduate study or first in sequence
- 700-800: Advanced (doctoral) graduate courses

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 number of credits given for a variable credit course must be approved by the instructor and the department and may not exceed the maximum semester hours that are defined for each course.

Maximum Credit Load

Undergraduate students usually are not permitted to register for more than 18 credits per semester, including work taken through the College of 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 written permission of the advisor and the appropriate college dean. 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/or plus/minus. Each grade 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	1.0
F	Failure	0.0
I	Incomplete	
CR	Credit	
NC	No Credit	
W	Withdrawal	
FC+	Failed/Remediation Completed (Pharmacy)	
FC	Failed/Remediation Completed (Pharmacy)	
FC-	Failed/Remediation Completed (Pharmacy)	
FD	Failed/Remediation Completed (Pharmacy)	
P	Pass (Pharmacy)	
NP	No Pass (Pharmacy)	
S	Satisfactory (Graduate Division)	
NG	Work-In-Progress (Graduate Division)	
RD	Report-Delayed (Faculty did not submit grade by deadline)	

CE	Credit by Institutional Examination
N	Student Exchange Participant

Incomplete Grade (I)

An instructor may assign an Incomplete (I) when a student has done most of the course work satisfactorily, but because of unforeseen circumstances has not completed all course requirements. The Incomplete is not for the purpose of converting a failing grade, or unsatisfactory work, to a passing grade. Incomplete grades should not be given to allow students to do extra credit work to raise their grades. The student must request the Incomplete option from the instructor, but it is the instructor's decision whether or not to approve the request. 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](#), then the Instructor who assigned the "I" can change it to the appropriate grade using the Change of Grade form, taking the completed work into consideration. In exceptional circumstances, the division chairperson or Dean can change an "I" grade using the Change of Grade Form.

If the coursework is not completed by the deadline, the "I" will change to an "F" or failing grade. For students taking courses as "CR/NC" ("Credit/No Credit") or "P/NP" ("Pass/No Pass") who do not complete the coursework by the deadline, the "I" will change to an "NC" or "NP". The Instructor may set a deadline sooner than that listed in the Academic Calendar, reflecting the instructor's availability to extend his/her commitment beyond the course. The time limit for Incomplete removal prevails whether or not the student maintains continuous enrollment. Some departments and programs may have more restrictive policies regarding incomplete grades.

The incomplete policy has specific implications for students receiving tuition scholarships and other kinds of financial aid and for international students holding visas. Students who receive federal or state aid may lose their eligibility if they receive Incompletes. See the [Financial Aid Satisfactory Academic Progress Policy](#).

All courses taken by undergraduate and professional level students are subject to the above policy.

Incomplete grades must be resolved before students can receive a degree.

Updated 12/2017

Credit/No Credit (CR/NC)

Students, provided that they are not on academic probation, may exercise their option to take a maximum of two (2) courses per semester on a "credit/no credit" basis. Courses completed under the CR/NC option **may not be used to satisfy the requirements for a major, minor, or certificate, and no more than 12 semester hours** in such courses may be counted toward the requirements for a degree. However, this exclusion does not apply to courses that are offered **only** on a CR/NC basis; these may be counted toward the requirements for a major, minor, or certificate and toward the requirements for a degree.

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-" (1.7) level. The CR/NC option must be exercised by the date designated for this purpose in the UH Hilo



[Academic Calendar.](#)

UH Hilo Grade-Point Averages (GPA)

Grade-Point Averages 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", "CE", "NG", "RD", "S", or "W"). The UH Hilo **semester** GPA is calculated on any one semester's credits and grade points. The UH Hilo **cumulative** GPA is calculated on all such work taken at UH Hilo.

Grade Reports

Students will access their grade results through the [MyUH website](#).

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. Students enrolled in the College of Pharmacy should refer to the Academic Policies and Deadlines pertaining to the College of Pharmacy. Failure to act within this time period disqualifies the student from further consideration of the matter. Once a student has graduated, grade changes may not be made in the student's record except in cases of documented instructor error.

Credit-by-Examination

Students at UH Hilo are eligible for several forms of credit by examination. **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. Classified 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.

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.

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. Satisfactory scores for advanced standing for CLEP General Examinations at UH Hilo are as follows:

- Humanities: 50 (3 semester hours)
- Mathematics: 50 (3 semester hours)
- Natural Sciences: 50 (3 semester hours)
- Social Sciences: 50 (3 semester hours)

Students completing CLEP subject examinations with acceptable scores will receive advanced standing college credits which will be noted on their permanent academic record. Please contact Admissions to

determine satisfactory scores for the **CLEP subject exams** and related credit awarded if the course is not listed in the [Transfer Information](#) on the Admissions website.

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. A list of how specific scores on specific Advanced Placement tests will be accepted for credit by UH Hilo is available online in the [Transfer Information](#) on the Admissions website.

International Baccalaureate Program

Advanced standing credit may be awarded for coursework completed in the International Baccalaureate Program. Scores of four or greater in higher level examinations will be considered for advanced credit. Contact the [Admissions Office](#) for equivalences.

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 discipline, 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 the grade "CE" (Credit by Exam) will be entered on the student's permanent academic record. Student must be a currently registered UH Hilo student during the term in which the Credit by Exam is given. Credit for the exam is posted to the student's records approximately five (5) weeks into the semester. Credit by Exam can not be used to replace a grade in a course already completed at UH Hilo.

Refer to the UH Hilo [Academic Calendar](#) for the last day to apply for Credit by Examination in the Fall and Spring semesters. A fee is required for each credit by institutional examination attempt and must be paid prior to the exam being administered. 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 or Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language;
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) or Director of [Ka Haka 'Ula O](#)



Ke'elikōlani College of Hawaiian Language.

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

Placement and Credit for Previous Knowledge of Hawaiian

Ka Haka 'Ula O Ke'elikōlani is a unique college established to serve native and bilingual speakers of Hawaiian as well as those new to the language. In order to be properly placed in an appropriate level of Hawaiian, students with previous knowledge of Hawaiian should take a placement examination. Ka Haka 'Ula conducts placement testing every fall and spring semester on a day during the week prior to the start of classes as well as part of its final examination schedule for HAW 101 Elementary Hawaiian I (4) through HAW 202 Inter Hawaiian II (4). Students in Hawaiian language courses may also earn an appropriate number of credits for demonstration of previous knowledge of Hawaiian language structure, literacy, and oral use. Call Ka Haka 'Ula O Ke'elikōlani for more information.

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."

Transfer Credits

For information on transferring credits from another college or university, please see [Admissions](#) in this Catalog. It is important to be aware that students transferring into UH Hilo with work done more than ten years prior to their admittance may find such work subject to further evaluation by the individual academic department.

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. Courses, training, or experience directly related to a military occupation are not eligible for transfer credit. 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.

Final Examinations

Final examinations are required in all courses except directed reading, research, seminar and composition courses. Final examinations are to be administered during the final examination period specified in the UH Hilo [Academic Calendar](#). Examinations will be administered at the location where the class has been taught at time specified in the regular semesters. No final examinations may be administered within two weeks of the final examination period although chapter or unit tests may be given during that time. Final examinations in some laboratory courses may be administered during the final week of classes. In the compressed schedule of summer sessions, final exams must be administered as close to the end of the session as possible.

Repeating Courses

With certain restrictions that are noted below, undergraduate students may retake a course with the intention of earning a higher grade. When a course is repeated, the GPA is computed by using **the most recent grade received**. If "W" is the "repeat" grade, the initial grade will be used to compute the GPA. If "F" is the "repeat" grade and the initial grade was "D" or higher, students will retroactively lose the credits that they previously earned. Grades from both initial and repeat attempts 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, except in those courses identified in the Catalog as repeatable.

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. Courses initially taken at UH Hilo must be repeated at UH Hilo in order for the repeat grade to be calculated in the GPA. Grades from other institutions will not be used to calculate the GPA.

A repeated course is not removed from the student's record. All grades earned are shown on the transcript. Any repeated courses taken after graduation will impact the student's cumulative GPA, but not their graduation GPA.

Many graduate and professional schools recalculate the grade point average using grades from all classes taken, including repeats, in determining eligibility for admission. This fact should be carefully considered by students who are attempting to increase their grade point average by repeating courses in which they have received a passing grade.

Repeatable Courses

Only certain courses that are identified in the Catalog as repeatable can be taken more than once for additional credit. Their course descriptions include the phrase "may be repeated for credit."

Directed Reading and Directed Studies

Directed Reading and Directed Studies require the sponsorship of a member of the faculty and approval of the Chair of the appropriate academic discipline, 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 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 semester hours of Directed Reading and/or Directed Studies per semester with not more than three 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.

The Directed Reading proposal form is available in division and college offices or may be downloaded at [Office of the Registrar's forms](#).

Once completed and signed, the original directed reading proposal form must be submitted to the [Office of the Registrar](#).

Declaration of Major

All classified undergraduate UH Hilo students should declare a major before registering for their junior year. Failure to do so could lengthen a student's time to graduation and prevent future registration.

Attendance & Satisfactory Progress

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 or 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.

Satisfactory Academic Progress

Satisfactory academic progress is defined by the University of Hawai'i at Hilo as maintaining an undergraduate or post-baccalaureate UH Hilo cumulative GPA of at least 2.0 or a graduate UH Hilo cumulative GPA of at least a 3.0.

Academic Warning, Probation & Dismissal

Academic Warning

An undergraduate student whose UH Hilo semester GPA is less than 2.0 will be notified and will be encouraged to seek academic advising.

Academic Probation

An undergraduate student whose UH Hilo cumulative GPA is less than 2.0 will be placed on academic probation. A graduate student whose UH Hilo cumulative graduate GPA is less than 3.0 will be placed on academic probation.

Continued Academic Probation

Following a semester on academic probation, an undergraduate student

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

Academic Dismissal

An undergraduate student whose UH Hilo semester GPA and UH Hilo cumulative GPA are both below 2.0 at the end of a semester of academic probation or continued academic probation will be dismissed from the University. He or she may appeal the academic dismissal in writing to the appropriate college dean by the Monday preceding the start of the semester.

A graduate student whose UH Hilo semester and cumulative GPA is still below a 3.0 at the end of 2 semesters of academic probation will be dismissed from the University. Individual graduate programs may have stricter requirements.

College of Pharmacy students should refer to the College of Pharmacy Handbook for specific information pertaining to academic status and dismissal.

Readmission

An undergraduate student who has been dismissed from the University for academic reasons may apply for readmission one semester after the date of academic dismissal. Such a student may be readmitted only under circumstances deemed acceptable to the appropriate college dean. Appeals for readmission must be received by the appropriate college dean at least two weeks prior to the first day of the semester or session. Readmission is not automatic and will be granted only where there is evidence the student will perform satisfactorily.

Academic Bankruptcy

Undergraduate students may declare one semester of their academic career at UH Hilo as an academically bankrupt semester. Although the student's UH Hilo GPA will be recalculated to exclude all of the grades from the bankrupt semester, the grades from that semester will remain on the transcript. A notation that the student has declared academic bankruptcy will appear on the transcript. **A declaration of academic bankruptcy must be made prior to graduation.**

Students who are interested in declaring academic bankruptcy should take the following into consideration:

1. Courses taken during the semester for which a student declares academic bankruptcy count toward the "3-peat" rule, which limits to three the number of times a student may take a course.
2. If a student received financial aid during the semester for which he or she declares academic bankruptcy, he or she should consult with the Financial Aid Office to determine how declaring academic bankruptcy might impact his or her financial aid eligibility.
3. No courses taken during the semester of academic bankruptcy shall count toward a degree, certificate, or minor.
4. Only one semester may be declared bankrupt during a student's academic career at UH Hilo.
5. Under no circumstances may less than a full semester's work be declared bankrupt.

The form to declare academic bankruptcy is available at each of the college deans' offices, in each of the College of Arts and Science Division Offices and online at the [Office of the Registrar's forms](#).



Honors

Dean's List

Shortly after the close of the Fall and Spring semesters, the names of all full-time undergraduate students who earned 12 or more semester credits for a letter grade at UH Hilo and achieved a GPA of 3.5 or above in the preceding semester will appear on the Dean's List.

Undergraduate Honors at Graduation

Honors in the College of Agriculture, Forestry and Natural Resource Management, the College of Arts and Sciences, the College of Business and Economics or Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language shall be determined in accordance with the cumulative GPA upon graduation in courses taken at UH Hilo in the following manner:

- Honors: UH Hilo GPA of 3.50 to 3.69
- High Honors: UH Hilo GPA of 3.70 to 3.84
- Highest Honors: UH Hilo GPA of 3.85 to 4.00

Only undergraduate students who have earned at least 60 semester hours at UH Hilo, all of which are 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. The award of an honors diploma follows the commencement exercise and is subject to the final review of all grades and credits earned.¹

To be eligible to receive an honor cord for the Commencement exercise, honors students must have achieved the minimum UH Hilo GPA of 3.50 and completed 45 of the 60 required credits by the end of the term preceding their graduation semester.

1. See [Academic Regulations for Nursing](#) for School of Nursing honors guidelines.

Academic Dishonesty

Because the University is an academic community with high professional standards, its teaching, research, and service purposes are seriously disrupted and subverted by academic dishonesty. Academic dishonesty includes cheating and plagiarism as defined below. Choosing to join the University community obligates each student to adhere to standards of honesty and integrity. By enrolling in the University, students accept the responsibility to become fully acquainted with the University's regulations and to comply with the University's authority. Ignorance of the definitions of cheating and plagiarism does not provide an excuse for engaging in acts on academic dishonesty.

Cheating includes but is not limited to:

1. using any unauthorized assistance in taking quizzes, tests, or examinations;
2. using sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments;
3. acquiring, without permission, tests or other academic material belonging to a member of the UH faculty, staff or student; and
4. engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion.

Plagiarism includes but is not limited to using, by paraphrase or direct quotation, the published or unpublished work of another person without full and clear acknowledgment. It also includes using unacknowledged materials prepared by another person or agency engaged in the selling of term papers or other academic materials.

In cases of suspected or admitted dishonesty, an instructor shall attempt to discuss the matter with the student. If appropriate, the instructor may bring it to the attention of the departmental chairperson, the student's advisor, division chairperson, and/or appropriate academic dean. Additionally, an instructor may refer such cases of academic dishonesty to the Dean of Students for action under the Student Conduct Code.

Refer to the [Student Conduct Code](#) in this catalog for more information about the UH Hilo Student Conduct Code or visit the [Student Conduct Code website](#).

In cases where the student admits to academic dishonesty, the instructor may, within the context of the course, require the student to re-do the assignment, give the student a failing or reduced grade for the assignment, or give a failing or reduced grade for the course. If the student contests his or her liability, the instructor may not take action against the student but must refer the case to the Dean of Students for hearing and disposition under the Student Conduct Code. The Dean of Students may pursue such matters as disciplinary actions under the Student Conduct Code if, after a preliminary investigation, it is his or her determination that probable cause exists to establish that academic dishonesty took place.

Academic Complaints

A student who believes that a faculty member has failed to meet reasonable standards of academic propriety may register a complaint. The Student Academic Complaint Policy has been established to provide guidelines and processes governing academic complaints. The student should first attempt to resolve the complaint on an informal basis with the faculty member. Should the complaint not be resolved at this level, the student should discuss it with the faculty's Discipline/Department Chairperson. If still no resolution is reached, the student may bring the matter to the Division Chair in the College of Arts and Sciences and then in writing to the Dean, or in writing to the Dean in the other colleges. Copies of the academic complaint policy are available in the offices of the dean or director of each college, in the office of the Vice Chancellor for Academic Affairs, and online at [Academic Complaint Policy \(PDF\)](#).

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

Catalog Choice and Retroactivity

Students may choose to fulfill all requirements from a single catalog for which they are eligible or they may fulfill the general education and integrative requirements from one of the catalogs for which they are eligible and all of the major requirements from another of the catalogs for which they are eligible. Catalog eligibility will be confirmed by the



Office of the Registrar when the student applies for graduation. It is imperative for students to work closely with their faculty advisor to make sure that the proper requirements are met.

Except as noted below, UH Hilo students may elect to follow the requirements selected from the following catalogs:

- The default catalog for all students entering UH Hilo will be the one in effect when they first enroll at UH Hilo as long as they maintain continuous enrollment, defined as no more than a one semester interruption¹ (excluding summers); if a student interrupts his/her enrollment by two or more consecutive semesters¹ (excluding summers), the "entering" catalog will be the one in force when the student returns to UH Hilo.
- Students may elect to use the catalog in force when they entered any campus of the UH System as long as they maintain continuous enrollment as defined above.
- Students may petition the Dean of their College for an approved leave of absence for unusual circumstances beyond the student's control; an approved leave of absence will allow a student to use the catalog in force when s/he entered UH Hilo or another UH System campus with a break of more than one semester.
- At the time of graduation, students may elect the UH Hilo catalog in force at graduation.
- Early in their academic careers, students should choose an entering catalog and should file a "catalog declaration" form with the [Office of the Registrar](#). This will determine the default requirements in STAR. At the time they file an application for graduation, they will again have the opportunity to choose the catalog under which they would like to graduate from the catalogs they are eligible for.

Baccalaureate degrees are granted only to those students who:

1. earn at least 120 semester hours
2. complete satisfactorily the program of courses prescribed for their majors
3. earn at least a 2.0 UH Hilo cumulative GPA as well as a 2.0 GPA in courses required for the major (a higher GPA may be required for some degrees) and minor (if any)
4. earn a minimum of 30 semester hours from UH Hilo
5. have been registered as classified students with a declared major in attendance at UH Hilo within the preceding calendar year
6. 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 all appropriate sections of this Catalog or speak with their faculty advisors or college deans for more details on these limitations.

More information on baccalaureate degree requirements is contained in the section [Undergraduate Education](#). Students are urged to pay strict attention to all requirements and to see an advisor regularly.

Application for Graduation

An application for graduation from any of the degree or certificate programs offered by UH Hilo must be submitted to the [Contracts, Procurement and Payments \(formerly Business Office\)](#) for processing by the deadline specified in the UH Hilo Academic Calendar. The Application for Degree/Certificate form and complete filing instructions are available on the [Office of the Registrar's forms](#). A non-refundable processing fee of \$15.00 is charged upon application. Failure to file a graduation application by the specified deadline will result in a delay of graduation.

Graduation *in Absentia*

Under extraordinary circumstances, students may earn their final credits at an institution other than UH Hilo and, upon official transfer of these credits back to UH Hilo, graduate with their degree from UH Hilo. This practice is called graduation *in absentia*. Students must demonstrate a compelling personal reason to graduate *in absentia*, and their application must be approved by the appropriate dean **before** any courses are taken *in absentia*.

Graduation *in absentia* is not automatic nor is it a right of students. In order to be eligible to be considered for graduation *in absentia*, a student must meet all of the specified conditions. Forms are available on the [Office of the Registrar's forms](#). Students whose application for graduation *in absentia* has been approved also must apply for graduation as described in the above section entitled "Application for Graduation."

1. Study Year Abroad and National Student Exchange are not considered breaks in continuous enrollment.

Baccalaureate Degrees: General Requirements

Second Baccalaureate Degrees

A student who has already received a baccalaureate degree may earn a second baccalaureate degree of a different type (e.g., B.S. versus B.A.) or the same type of degree provided that:

- The major is different from the prior degree
- The student completes a minimum of 30 semester credit hours at UH Hilo after the first degree has been awarded. (Note: Students who received a baccalaureate degree from UH Hilo are exempt from this requirement.)
- All degree requirements are met

Students seeking a second degree are classified as **seniors** for registration.

Students entering the [College of Arts and Sciences \(CAS\)](#), the [College of Business and Economics \(COBE\)](#), and [Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#), who have completed a B.A. degree from a regionally accredited college or university (excluding other baccalaureate degrees), will be exempted from the General Education requirements for a second B.A. degree, unless specific prerequisites are needed for the new major.

Students who have completed other kinds of baccalaureate degree may need to take additional courses to complete the Basic and Area requirements, as well as the Integrative, major, and other graduation requirements.

Major, Minor and Certificate Requirements

Requirements for specific majors, minors, and certificates are described in the program description sections of this Catalog. It is important for students to know that:

- Courses completed on an **optional** "credit/no credit" basis may not



be used to satisfy the course requirements for a major, minor, or certificate.

- Students transferring into the [College of Arts and Sciences \(CAS\)](#), the [College of Business and Economics \(COBE\)](#), or [Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#), regardless of the number of transfer credits accepted, must earn a minimum of 25 percent of the required credits for their majors, minors, and certificates at UH Hilo.

The Major

The major is an area of specialization, involving a sequence of coursework usually concentrated in a single academic discipline. Completion of a major is an essential component of a college education. At UH Hilo, students are expected to declare a major by the time they reach their junior year (*i.e.*, have earned 55 credits). This is done by filing a Declaration/Change of Major/Program form, available from the [Office of the Registrar](#) or on the [Office of the Registrar's forms website](#). Students may change majors, though it may lengthen the time it takes to complete a degree. Students considering changing a major should first consult with an academic advisor in the new major.

Courses required for the major may also be used to fulfill the General Education Basic, Area, and Integrative requirements. These are described in the section in this catalog entitled "General Education Basic, Area, or Integrative Requirements." Students who plan to graduate under the pre-Fall 2011 General Education, Writing Intensive, and Hawai'i-Asia-Pacific requirements will find these listed in the 2010-2011 university catalog. Please be aware that students must earn at least a 2.0 GPA in courses required for the major and that certain departments have imposed their own requirements for minimal grades, which will be indicated on their program descriptions.

Students may pursue more than one academic major, provided that the requirements for each major are satisfied. See the last section of this chapter for policies governing second degrees, concurrent degrees, and double majors.

The Minor

An academic minor, earned in conjunction with a baccalaureate degree, is a sequence of courses enabling a student to specialize in a field of study but to a lesser extent than with a major program. In most cases, the choice to pursue a minor or not is a voluntary one. (An exception is the Natural Sciences degree, where a minor is required.) The academic minor is intended to provide the student with a certain competency in the subject but does not itself lead to a degree, nor would it ordinarily prepare a student for graduate study.

Requirements for minors are listed in the program description section of this Catalog. Students must earn at least a 2.0 GPA in courses required for the minor. Certain departments have imposed their own requirements for minimal grades, which will be indicated on their program descriptions. Before declaring their minor (through the Declaration/Change of Major/Program form), students should consult with an advisor in their desired minor area.

Certificate Programs

The University also offers a number of certificates, which are supplemental credentials available to students enrolled in an associate, bachelor's or graduate degree program, *i.e.*, classified students, and to unclassified students already holding undergraduate or graduate credentials. Students enrolled solely for the purpose of obtaining an

academic subject certificate will be regarded as unclassified for admission and enrollment purposes ([Executive Policy E5.205](#), Section III.B.2). Students are urged to consult an advisor in the department sponsoring the certificate program and to signal their intent to pursue a certificate by completing the Declaration/Change of Major/Program form.

Concurrent Degrees and Double Majors

Concurrent Degrees

A student may earn and graduate with two degrees simultaneously provided that

- The degrees are different (*e.g.*, B.B.A. and B.S. but not two B.S. degrees)
- The degrees are in different majors

Double Majors

A student may earn one degree (*e.g.*, a B.A.) and graduate with two majors (double major) provided that all degree requirements associated with each major are fulfilled before the degree is awarded.

Exceptions to Academic Regulations

Any student may petition the University for a waiver of or other exception to any academic policy or regulation. If the request involves a requirement for a major or minor, the petition goes to the chair of the department. If it involves a General Education or graduation requirement, the petition goes to the dean of the student's college. The petition should include clear and convincing justification for the action requested as well as appropriate documentation, such as syllabi or catalog course descriptions of the courses in question.

Request for Modification of Academic Requirement forms may be obtained in any of the CAS Division Offices, each of the college dean's offices, and the [Office of the Registrar](#), or online at [Office of the Registrar's forms](#).

Accreditation

All-University

UH Hilo is accredited by the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges (WASC).

Contact information: 985 Atlantic Avenue, Ste. 100, Alameda, CA 94501; Tel: (510) 748-9001; Fax: (510) 748-9797; Email: wascsr@wascsenior.org; Web: wascsenior.org.

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. Mookini Library and on the [Accreditation website](#).

Education Programs

UH Hilo has two programs accredited by the Hawai'i Teacher Standards Board through the State Approval of Teacher Education Program (SATEP) process:



1. The School of Education Master of Arts in Teaching Program within the College of Arts and Sciences
2. Kahuawaiola Indigenous Teacher Education Program within the Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

Contact Information: Hawai'i Teacher Standards Board, 650 Iwilei Rd, #201, Honolulu, HI 96817; Tel: (808) 586-2600; Email: cgyuran@htsb.org.

Master of Arts in Counseling Psychology

The MA program in Counseling Psychology is accredited by the Masters in Psychology Accreditation Council. Contact information: P.O. Box 721173, Norman, OK, 73070; Tel: (405) 329-2424; Web: mpcaccreditation.org.

School of Nursing

The School of Nursing is accredited by the Accreditation Commission for Education in Nursing (ACEN). Contact information: 3343 Peachtree Road NE, Suite 850, Atlanta, GA 30326. Tel: (404) 975-5000; Fax: (404) 975-5020; Web: acnursing.org.

College of Business and Economics

Programs in the College of Business and Economics are accredited by AACSB International—The Association to Advance Collegiate Schools of Business (AACSB). Contact information: 777 South Harbor Island Blvd., Suite 750, Tampa, FL 33602-5730; Tel: (813) 769-6500; Fax: (813) 769-6559; Web: aacsb.edu.

Daniel K. Inouye College of Pharmacy

The Daniel K. Inouye College of Pharmacy's Doctor of Pharmacy program is fully accredited by the Accrediting Commission for Pharmacy Education. Contact information: ACPE, 20 North Clark Street, Suite 2500, Chicago, IL 60602-5109; Tel: (312) 664-3575; Fax: (312) 664-4652; Email: csinfo@acpe-accredit.org.

Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language

Ka Haka 'Ula O Ke'elikōlani and all of its units are accredited by the World Indigenous Nations Higher Education Consortium. Contact information: WINHEC Head Office, Professor Boni Robertson; Ph: + 61 (0) 7 3382 1413 Ext: 21109; info@hualanifoundation.org. Web: winhec.org.

English Language Institute

The English Language Institute (ELI) is accredited by the Commission on English Language (CEA). Contact information: CEA 801 North Fairfax Street, Alexandria, VA 22314; Tel: (703) 519-2070; Fax: (703) 519-2071; Web: cea-accredit.org.

Clery Act Statement

The University of Hawai'i at Hilo's Annual Campus Security Report includes statistics for the previous three years concerning reported crimes that occurred on-campus, in certain off-campus buildings, property owned or controlled by the University of Hawai'i at Hilo, and on public property within, or immediately adjacent to and accessible from, the campus. The report also includes institutional policies concerning campus security, such as policies concerning sexual assault, and other

matters. You can obtain a copy of this report by contacting UH Hilo Campus Security, (808) 974-7911, located in Room 104 of the Auxiliary Services Building.

Computer Policies

The University of Hawai'i Information Technology Services (ITS) maintains UH System policies and practices pertaining to computing resources. These [policies are available online](#) and include policies on responsible use of computers, information security, copyright, and guidelines for network etiquette. The [ITS website](#) also contains computer-related information and resources for students, faculty and staff, including personal tools (UH email accounts, antivirus, spam), support services (help desk, software, hardware, accessibility, web publishing), and teaching and learning with technology (e.g., Laulima, mailing lists).

Students are expected to adhere to the [University of Hawai'i Use and Management of Information Technology Resources Policy \(Executive Policy E2.210\)](#). In support of its mission of teaching, research, and public service, and within its institutional priorities and financial capabilities, the University of Hawai'i provides access to computing, network and information systems and services for the students, faculty, and staff who form the basis of the UH community. Collectively, these computing, network and information systems and services comprise the institution's information technology infrastructure. The University strives to create an intellectual environment in which its community can effectively access and create information and collaborate with colleagues both within the UH system and at other institutions. As it does so, the University is committed to maintaining an information environment that is free of harassment and is accessible to all members of its community. Such an environment can exist only when the users and managers of the information technologies behave responsibly and respectfully.

The policy describes principles of using computers responsibly, which includes observing all laws relating to copyright, trademark, export and intellectual property rights. It also includes sections on the privacy of student information, confidentiality and security of electronic information, ownership and disclosure of information, and a statement on the University's commitment to access. This policy applies to all computing, information, and network resources administered by the University of Hawai'i Information Technology Services.

Email Policy

Email is an official means of communication within the University. The University has the right to send communications to students via email and to expect that those communications will be received and read in a timely fashion. The University will send official email communications to the student's official UH email address. Students are responsible for checking their UH email account frequently and consistently to remain current with University communications. For information about obtaining and managing a UH email account and about email policies and practices, visit the [Information Technology Services website](#) and the [EP2.213 System and Campus-Wide Electronic Channels for Communicating with Students](#) policy.

Medical Clearance

In accordance with Hawai'i State law, all newly enrolled students must submit the following:

1. A completed Health History Form (mailed from the Admissions Office with the student's acceptance letter or available on the [Mandatory](#)



Health Requirements;

2. Results of a tuberculin skin test (PPD) or chest x-ray performed not more than 12 months prior to enrollment date (note: tuberculin tests and chest x-rays performed in foreign countries are not acceptable for clearance);
3. If born after 1956, proof of immunity to measles (rubeola), mumps, and rubella (MMR). Documentation of 2 MMR vaccinations or a titer is required.

These requirements must be met before the start of classes. Tuberculin skin tests (TB), MMR and other various immunizations are available at the [Student Medical Services](#) on campus (cost varies based on insurance coverage, cash paying or uninsured).

Student Health Insurance

Health insurance is highly recommended for all students. A University of Hawai'i endorsed student health insurance plan is designed for students and is generally less expensive than most other health insurance plans. Detailed information about this insurance plan including costs and an application are available online at [HMSA Student Health Plan](#). Applications may also be picked up from the [Student Medical Services Office](#) (Campus Center 211) or mailed by calling (808) 932-7369.

International students in F-1 Student or J-1 Exchange Visitor status must have adequate health and accident insurance each semester. F-1 Students must present proof of their insurance to the Director of International Student Services prior to registration. J-1 Exchange Visitors must present such proof to their Responsible Officers.

Students who do not have private health insurance may qualify for State of Hawai'i health insurance called QUEST. Qualifications for this free, limited insurance plan are based on income and assets. Detailed information including an application is available online at the [QUEST website](#) or by calling 1-800-316-8005 or Student Medical Services at (808) 932-7369.

Nondiscrimination Policy

The University of Hawai'i at Hilo is an institution that is committed to promoting a working and learning environment free of discrimination on the basis of race, sex, gender identity and expression, age, religion, color, national origin, ancestry, citizenship, disability, genetic information, National Guard absence, status as a covered veteran, marital status, sexual orientation, breastfeeding, income assignment for child support, domestic violence victim status, arrest and court record (except as permissible under State law), and retaliation. It allows all individuals in the university to have fair and equal treatment in the processes which affect education and employment by enforcing all federal/state laws and regulations and the University of Hawai'i Board of Regents policies related to civil rights, affirmative action and non-discrimination.

For information on equal employment opportunity/affirmative action policies or discrimination complaint procedures for UH Hilo, see the [UH Hilo Policies and Procedural Guidelines for Nondiscrimination on the Basis of Disability](#)¹ or contact the following persons:

Complaint against a student

All Categories of Discrimination Except Gender Complaints

[Karishma Kamath](#)

Director of Student Conduct
Student Services Building, Room W-309

**Generated: Monday, April 23, 2018,
8:18am**

Tel: (808) 932-7472
Fax: (808) 932-7471
TTY: (808) 932-7002
Email: karishma@hawaii.edu

Gender/Sex Complaints

[Jennifer Stotter](#)

Director, [Equal Employment / Affirmative Action \(EEOAA\)](#)
Trailer E (Behind the Business Office)

Tel: (808) 932-7642
TTY: (808) 932-7002
Email: jstotter@hawaii.edu

Complaint against an employee

[Jennifer Stotter](#)

Director, [Equal Employment / Affirmative Action \(EEOAA\)](#)
Trailer E (Behind the Business Office)

Tel: (808) 932-7642
TTY: (808) 932-7002
Email: jstotter@hawaii.edu

Athletics

[Roxanne Levenson](#)

NCAA Compliance Officer and Senior Women's Administrator

Athletics - Title IX

320C-110

Tel: (808) 932-7161

TTY: (808) 932-7002

1. Available in alternate format upon request by contacting [Disability Services](#) at (808) 932-7623 or (808) 932-7002 (TTY).

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 be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination by any University program or activity. UH Hilo also adheres to a set of institutional policies and procedures for non-discrimination on the basis of disability. The [UH Hilo Policies and Procedural Guidelines for Non-Discrimination Based on Disability](#) is available on the UH Hilo website.

A hard copy may be obtained by contacting the [Disability Services Office](#) at (808) 932-7623 [V], (808) 932-7002 [TTY], uds@hawaii.edu (email). Services for students with a disability are provided by the Disability Services Office. Faculty and staff requesting accommodations should contact their supervisor and/or the [Equal Employment / Affirmative Action \(EEOAA\)](#) Office at (808) 932-7642, or eeoaa@hawaii.edu.

Distance Learning Courses and Accessibility

According to the Policies and Procedural Guidelines for Nondiscrimination on the Basis of Disability (Revised July 2012), UH Hilo handles requests for accommodations by students with disabilities enrolled in distance education programs on a case-by-case basis". Such action is taken due



to the individual nature of each student with disability's academic accommodation needs and the varying level of disability impact.

The University is committed to the supports needed to ensure a student with disability's equal access to the array of the University's program, services and activities. If you are needing a disability related accommodation for an on-line course that you are enrolled in, please contact the [Disability Services Office](#). For general information about supports for all students taking Distance Learning courses, please go to the [Distance Learning at UH Hilo website](#).

Policy for Tobacco Products

In an effort to improve the working and learning environment of the university and protect faculty, staff, students, and visitors from secondhand smoke exposure, the University of Hawai'i has implemented a tobacco products policy that not only prohibits smoking in various outdoor areas, but also prohibits the sale of tobacco products on campuses, the sponsorship of campus events or organizations by tobacco companies, and calls for cessation guidance to be provided to individuals who wish to quit their smoking habit.

Smoking is prohibited in the following areas:

- All interior space owned, rented, or leased by the University;
- In building courtyards, breezeways, and terraces, on exterior stairways and access ramps, and outdoor dining patios, terraces, and lanais;
- Within 20 feet of building entrances, exits, air intake ducts, vents, and windows of buildings that are not air-conditioned;
- Within 50 feet of designated pick-up and drop-off points for campus and public bus transportation;
- Within the gates of the university's outdoor sports and performing arts stadiums and arenas, including walkways, corridors, and seating areas; and,
- Any area that has been designated by the person having control of the area as a non-smoking area and marked with a no smoking sign.

In addition,

- All University residences became smoke-free by the start of the 2004-2005 academic year.
- All advertising and sales of tobacco products on University campuses are prohibited (except for the sale or free distribution of non-university supported magazines and newspapers that incidentally contain tobacco product advertising).
- The distribution of samples of tobacco products or coupons redeemable for tobacco products on university campuses is prohibited.
- The sponsorship of campus events or campus organizations by tobacco industry or tobacco promoting organizations is prohibited.
- On-site tobacco product cessation guidance will be made available to assist and encourage individuals who wish to quit. Supervisors may authorize employees who wish to avail themselves of such on-campus programs to do so without any loss in pay.

This policy applies to the entire university community, including faculty, staff, students and visitors. The Office of the Vice President for Administration and Chief Financial Officer is responsible for policy implementation and compliance in collaboration with heads of all UH campuses. Questions, comments, or complaints relating to this policy should be directed to each respective campus head or designees.

Sexual Harassment and Sexual Assault

It is the policy of the University of Hawai'i Hilo (UH Hilo) to provide a safe and violence-free learning and working environment for students and employees. UH Hilo recognizes the serious issues concerning sexual harassment and sexual assault. Sexual harassment is a form of sex discrimination that can undermine the foundation of trust and mutual respect that must prevail if UH Hilo is to fulfill its educational mission. Sexual harassment and sexual assault will not be tolerated in any part of UH Hilo programs and activities. Sanctions will be imposed on the members of the UH Hilo community who are found responsible for sexual harassment or sexual assault.

Complaint Procedures

Any of the individuals listed below can provide information on informal and formal complaint procedures. In some cases, informal procedures are effective in stopping sexual harassment. Formal complaint procedures exist to protect all students and employees and are available online at:

- [Policy on Sexual Harassment and Related Conduct](#)
- [University of Hawai'i at Hilo Sexual Assault Policy](#)
- [Discrimination Complaint Procedures for Students, Employees and Applicants for Admission or Employment](#)

These documents are available in alternate format upon request by contacting [Disability Services](#) at (808) 932-7623 or (808) 932-7002 (TTY).

For Advice, Information, Counseling or Other Support

Associate Director, [Counseling Services](#)
Student Health and Wellness Programs
Student Services Building, Room 201
Tel: (808) 932-7460
TTY: (808) 932-7002

or

Coordinator, [Women's Center](#)
Campus Center, Room 312
Tel: (808) 932-7381
TTY: (808) 932-7002

To File a Complaint Against a Student

Kelly Oaks, Interim Associate Vice Chancellor for Student Affairs & Dean of Students
Student Services Building, Room 210
Tel: (808) 932-7472
TTY: (808) 932-7002

To File a Complaint Against an Employee

[Jennifer Stotter](#), Director, Equal Employment Opportunity/Affirmative Action, Title VI, Title IX Coordinator
Trailer E
Tel: (808) 932-7642
TTY: (808) 932-7002
Email: eeoaa@hawaii.edu



Graduation and Persistence Rates

University of Hawai'i at Hilo Graduation and Persistence Rates

The following information is for First-Time, Full-Time, Degree-Seeking Undergraduates in the Fall 2010 Cohort.

Graduation Rate

35% of students in this cohort graduated within 6 years.

Gender

Gender	Graduation Rate
Men	37%
Women	32%

IPEDS Race/Ethnicity

Race	Graduation Rate
Nonresident alien	#
Hispanic/Latino	26%
American Indian or Alaska Native	#
Asian	42%
Black or African American	#
Native Hawaiian or Other Pacific Islander	34%
White	25%
Two or more races	37%
Race or ethnicity unknown	#

A pound sign (#) denotes any cohort/subcohort with fewer than ten students.

Federal Grant/Loan Recipient

Recipient	Graduation Rate
Recipient of a Federal Pell Grant	29%
Recipient of a subsidized Stafford Loan who did not receive a Pell Grant	28%
Student who did not receive either a Pell Grant or a subsidized Stafford Loan	42%

Persistence Rate

4% of students in this cohort were still enrolled 6 years after entry.

This information is provided for the Student Right-to-Know Act, Public Law 101-542. It provides a partial description of the graduation and enrollment patterns of students. It should not be used to infer or predict individual behavior.

Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords eligible students certain rights with respect to their education records. These

rights include:

- The right to inspect and review the student's education records within 45 days after the day the University of Hawai'i at Hilo receives a request for access. A student should submit to the registrar, dean, head of the academic department, or other appropriate official, a written request that identifies the record(s) the student wishes to inspect. The school official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the school official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

- The right to request the amendment of the student's education records that the student believes is inaccurate, misleading, or otherwise in violation of the student's privacy rights under FERPA.

A student who wishes to ask the school to amend a record should write the school official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed.

If the school decides not to amend the record as requested, the school will notify the student in writing of the decision and the student's right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

- The right to provide written consent before the school discloses personally identifiable information (PII) from the student's education records, except to the extent that FERPA authorizes disclosure without consent.

The school discloses education records without a student's prior written consent under the FERPA exception for disclosure to school officials with legitimate educational interests. A school official is a person employed by the University of Hawai'i at Hilo in an administrative, supervisory, academic, research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the board of regents; or a student serving on an official committee, such as a disciplinary or grievance committee. A school official also may include a volunteer or contractor outside of the University of Hawai'i at Hilo who performs an institutional service or function for which the school would otherwise use its own employees and who is under the direct control of the school with respect to the use and maintenance of PII from education records, such as an attorney, auditor, or collection agent. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University of Hawai'i at Hilo.

- Parents and spouses of students are advised that information contained in education records, with the exception of directory information, will not be disclosed to them without the prior written consent of the student.

- Students are advised that institutional policy and procedures required under FERPA have been published as [Administrative Procedure A7.022, Procedures Relating to Protection of the Educational Rights and Privacy of Students](#). Copies of Administrative



Procedure AP 7.022 may be obtained from the Office of the Vice Chancellor for Students.

- The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University of Hawai'i at Hilo to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

*Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW Washington, DC 20202*

Directory Information

The University has designated the following information from a student's education record as "directory information":

- Name of student;
- Major field of study;
- Class (i.e., freshman, sophomore, etc.);
- Past and present participation in officially recognized activities (including positions held and official statistics related to such participation and performance);
- Past and present participation in officially recognized sports (including positions held and official statistics related to such participation and performance);
- Weight and height of members of athletic teams;
- Dates of attendance;
- Previous institution(s) attended;
- Full or part-time status;
- Degree(s) conferred (including dates);
- Honors and awards (including dean's list).

At its discretion and in conformance with applicable state law, the University may disclose directory information to the public without obtaining a student's prior consent, so long as certain conditions regarding general notification of disclosure of directory information have been followed. Specific directory information about an individual student will not be released to the public if the student has affirmatively informed the University that he or she does not want any or all of those types of information about himself or herself designated as directory information. The procedures for an individual student to "opt" out of disclosure is set forth in [Administrative Procedure A7.022 Procedures Relating to Protection of the Educational Rights and Privacy of Students](#).

Note: Submission of this FERPA nondisclosure of directory information request does not automatically remove students from the UH Online Directory of email addresses, which is accessible only to those with a valid UH email address.

To remove yourself from the UH Online Directory:

1. Log in to [MyUH](#).
2. Select the My Profile Tab.
3. Look for UH Online Directory, Options for Students, select Opt-out

Lists of directory information will not be made publicly available to third parties.

The school may provide the UH Foundation with lists of students with the following information: name, school/college/division/department. Degree, major and minor fields of study, UH email address, home address, and telephone number for the purpose of University and alumni relations.

FERPA Annual Notice Addendum

As of January 3, 2012, the U.S. Department of Education's FERPA regulations expand the circumstances under which your education records and personally identifiable information (PII) contained in such records—including your Social Security Number, grades, or other private information—may be accessed without your consent. First, the U.S. Comptroller General, the U.S. Attorney General, the U.S. Secretary of Education, or state and local education authorities ("Federal and State Authorities") may allow access to your records and PII without your consent to any third party designated by a Federal or State Authority to evaluate a federal- or state-supported education program. The evaluation may relate to any program that is "principally engaged in the provision of education" such as early childhood education and job training, as well as any program that is administered by an education agency or institution. Second, Federal and State Authorities may allow access to your education records and PII without your consent to researchers performing certain types of studies, in certain cases even when we object to or do not request such research. Federal and State Authorities must obtain certain use-restriction and data security promises from the entities that they authorize to receive your PII, but the Authorities need not maintain direct control over such entities. In addition, in connection with Statewide Longitudinal Data Systems, State Authorities may collect, compile, permanently retain, and share without your consent PII from your education records, and they may track your participation in education and other programs by linking such PII to other personal information about you that they obtain from other Federal or State data sources, including workforce development, unemployment insurance, child welfare, juvenile justice, military service, and migrant student records systems.

Student Conduct Code

The University of Hawai'i at Hilo has a Student Conduct Code that specifies behavior that is subject to University disciplinary action and describes the disciplinary procedures and sanctions that may be imposed if a student is found responsible for violating the Code. Choosing to join the University community obligates each student to abide by the code of conduct. By enrolling in the University, students accept the responsibility to become fully acquainted with the University's regulations and to comply with the University's authority. The University expects students to maintain standards of personal integrity that are in harmony with the educational goals of the institution; to respect the rights, privileges, and property of others; and to observe national, state, and local laws and University regulations.

The full text of the Student Conduct Code is available at the [Student Conduct Code website](#).

Any member of the University community (faculty, staff, or student) may bring forth an allegation that a student has violated the Student Conduct Code. Reports should be submitted in writing to the Dean of Students. Disciplinary authority is exercised through the Dean of Students or designee or the Student Conduct Committee, or, in cases dealing with academic dishonesty, by a faculty member (refer to the section on academic dishonesty in the "Academic Regulations" section of this catalog). The Dean of Students, Student Conduct Committee, or faculty member follows standard procedures for handling allegations of misconduct.

One or more of the following sanctions may be imposed when a student is found responsible for violating the Student Conduct Code:

- warning;



- probation;
- a failing or reduced grade for a course or an assignment;
- restitution;
- temporary suspension in emergency situations;
- suspension;
- dismissal;
- rescission of grades or degree.

The following types of behavior conflict with the community standards that the University values and expects of students. Engaging in, or attempting to engage in, any of these behaviors subjects a student to the disciplinary process and consequent sanctions.

Acts of dishonesty, including but not limited to the following:

- **Cheating, plagiarism, or other forms of academic dishonesty.** The term "*cheating*" includes but is not limited to: (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) use of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) the acquisition, without permission, of tests or other academic material belonging to a member of the UH faculty, staff or student; and (4) engaging in any behavior specifically prohibited by a faculty member in the course syllabus or class discussion. The term "*plagiarism*" includes but is not limited to the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials.
- **Furnishing false information** to any UH official, faculty member, or office.
- **Forgery, alteration, or misuse** of any UH document, record, or form of identification.

Drugs: Use, possession, manufacture, or distribution of marijuana, heroin, narcotics, or other controlled substances except as expressly permitted by law.

Alcohol: Use, possession, manufacture, or distribution of alcoholic beverages by any person under twenty-one (21) years of age. Public intoxication is expressly prohibited. Consumption of alcoholic beverages on campus is permitted only in the Hale 'Ikena residence hall by students 21 years of age or older. Consumption of alcoholic beverages is forbidden in all public and common areas of the residence halls and elsewhere on campus.

Disruption or obstruction of teaching, research, administration, disciplinary proceedings, other UH activities, including its public service functions on or off campus, or of other authorized non-UH activities when the conduct occurs on UH premises. This includes creating noise or other disturbances on campus or in student life areas sufficient to disrupt the normal functioning of campus activities including classroom instruction.

Any conduct which threatens or endangers the health or safety of any person including but not limited to physical abuse, verbal abuse, threats, intimidation, harassment, coercion, and stalking.

Sexual harassment: Sexual advances, requests for sexual favors or other behavior of a sexual nature that is unwelcome and sufficiently severe or pervasive that it interferes with a person's academic or professional performance or creates an intimidating, hostile or offensive educational or employment environment. The behavior can be verbal, non-verbal or physical. Examples include sexual innuendo, spreading

sexual rumors, sexual put-downs and jokes, remarks of a sexual nature about a person's clothing or body, offensive written notes or emails, sexual propositions, insults or threats, leering, whistling, suggestive or insulting sounds and gestures, and touching someone's body when unwelcome. The [University of Hawai'i Executive Policy on Sexual Harassment and Related Conduct](#) contains detailed information.

Discrimination of any person based on the UH protected classes outlined in the [University Statement of Nondiscrimination and Affirmative Action](#).

Attempted or actual theft of and/or damage to property of the UH or property of a member of the UH community or other personal or public property, on or off campus.

Hazing, defined as an act which endangers the mental or physical health or safety of a student, or which destroys or removes public or private property, for the purpose of initiation, admission into, affiliation with, or as a condition for the continued membership in a group or organization. The express or implied consent of the victim will not be a defense. Apathy or acquiescence in the presence of hazing is not a neutral act; both are violations of this rule.

Failure to comply with any directions of UH officials or law enforcement officers acting in performance of their duties and/or failure to provide identification to these persons when requested to do so.

Breach of security: Unauthorized possession, duplication, or use of keys, keycards, or other security mechanisms to any UH premises or unauthorized entry to or use of UH premises.

Illegal or unauthorized possession of firearms, explosives, other weapons, or dangerous chemicals on UH premises or use of any such item, even if legally possessed, in a manner that harms, threatens or causes fear to others.

Participating in an on-campus or off-campus demonstration, riot or activity that disrupts the normal operations of the UH and/or infringes on the rights of other members of the UH community; leading or inciting others to disrupt scheduled and/or normal activities within any campus building or area.

Obstruction of the free flow of pedestrian or vehicular traffic on UH premises or at UH sponsored or supervised functions.

Conduct that is disorderly, lewd, or indecent; breach of peace; or aiding, abetting, or procuring another person to breach the peace on UH premises or at functions sponsored by, or participated in by, the UH or members of the academic community. Disorderly conduct includes but is not limited to any unauthorized use of electronic or other devices to make an audio or video record of any person while on UH premises without his/her prior knowledge or without his/her consent, when such a recording is likely to cause injury or distress. This includes but is not limited to surreptitiously taking pictures of another person in a gym, locker room, or restroom.

Theft or other abuse of computer and other electronic facilities and resources, including but not limited to:

- Unauthorized entry into a file to use, read, or change the contents or for any other purpose.
- Unauthorized transfer of a file.
- Use of another individual's identification and/or password.
- Use of computing facilities and resources to interfere with the work



- of another student, faculty member of UH official.
- Use of computing facilities and resources to send obscene or abusive messages.
- Online harassment of members of the UH community.
- Use of computing facilities and resources to interfere with normal operation of the UH computing system.
- Use of computer facilities and resources in violation of copyright laws.
- Any violation of any UH computer use policy.

Violations of residence hall regulations where the violation also involves some aspect of this Student Conduct Code may subject the student to disciplinary procedures under this Student Conduct Code.

Abuse of the Student Conduct Code system.

Violation of any UH policy, rule, regulation, contract or agreement.

Violation of any federal, state or local law.

Baccalaureate Degree Requirements

A baccalaureate degree (also called a “bachelor’s degree”) is earned upon the completion of at least 120 college semester hours. To earn the baccalaureate degree, students must also complete the requirements for their major; these are listed by department and degree elsewhere in the catalog. In addition, students must complete the following graduation requirements:

- Complete at least 120 semester college credits. This minimum is higher for some baccalaureate degrees.
- Earn at least a 2.0 cumulative UH Hilo GPA as well as a 2.0 GPA in courses required for the major (a higher GPA may be required for some degrees) and minor (if any).
- Earn a minimum of 30 semester hours from UH Hilo.
- Have been registered as classified students with a declared major and in attendance at UH Hilo within the preceding year.
- Meet all requirements of their respective colleges and departments.

Additional Information

- [General Education Requirements](#)
- [General Education and Integrative Requirements for the Baccalaureate Degree](#)
- [General Education Requirements for Transfer Students](#)
- [Upper Division Requirement](#)
- [Major, Minor and Certificate Requirements](#)
- [Concurrent Degrees and Double Majors](#)
- [Second Baccalaureate Degrees](#)

General Education and Integrative Requirements for the Baccalaureate Degree

In Fall 2011, a new set of General Education Core requirements and Integrative requirements went into effect. In brief, they are:

General Education Requirements

- **Core:**
 - **Basic Requirements:**
 - Composition (3 cr)

- Language Arts (3 cr)
- Quantitative Reasoning (6 cr)
- World Cultures (6 cr)
- **Area Requirements:**
 - Humanities (6 cr in two different disciplines)
 - Social Sciences (6 cr in two different disciplines)
 - Natural Sciences (7 cr, including two lecture courses in different disciplines and one laboratory course associated with one of these)
- **Integrative Requirements:**
 - Writing Intensive (3 courses, at least one at the upper-division level)
 - Hawai'i Pan-Pacific (3 cr)
 - Global and Community Citizenship (3 cr)

Courses currently certified for these categories are listed on the [General Education website](#).

Students may satisfy the General Education requirements in force in the year they entered UH Hilo or any of the UH campuses, as long as they have maintained continuous enrollment. The [Catalog Choice and Retroactivity policy](#) and the [Catalog Declaration form](#) for students to fill out are located online. Please see your advisor if you wish to know more about this option.

To earn the baccalaureate degree, students must also complete the requirements for their major; these are found in the [Undergraduate Education](#) section of the catalog

In addition, students may take a number of elective courses, which are not used to fulfill any particular requirement but make up the 120+ semester credits needed to graduate. These electives may be chosen from any undergraduate course offered at UH Hilo. When choosing electives, student may wish to consult their advisors to select courses that enhance learning in their major or expand options for careers or graduate study.

All degree requirements must be met within the special limitations imposed upon [directed reading/directed studies](#), “[credit/no credit](#),” and the [credit by examination policy](#). Students should consult the appropriate sections of this Catalog and speak with their faculty advisors or college deans for more details on these limitations.

With the approval of his or her academic advisor, a student may petition the University for a waiver or modification of academic requirements. If the request involves a requirement for a major or minor, the petition goes to the chair of the department. If it involves a General Education or graduation requirement, the petition goes to the dean of the college. The petition should include clear and convincing justification for the action requested as well as appropriate documentation, such as syllabi or catalog course descriptions of the courses in question.

It is extremely important that each student meet with an academic advisor regularly to ensure timely progress toward a degree. Students who have not declared a major should consult with the [Advising Center](#) staff, (808) 932-7776. Declared majors will be assigned a faculty advisor in their discipline.

General Education Learning Goals and Objectives

The General Education Requirements are designed to [meet six goals and their respective learning outcomes](#).



Criteria for certification for GE Courses by requirement can be found on the [General Education criteria](#) page.

Transfer Students with a Degree

Students transferring into UH Hilo with a conferred Associate of Arts (A.A.) degree or a Bachelor of Arts (B.A.) from an institution accredited by a U.S. regional accreditation agency will be exempted from the General Education Core (Basic and Area) requirements, **unless specific course requirements are needed for a given major or specialty.**

For additional detail on transfer of General Education coursework, see the [General Education Transfer Policy](#).

Transfer Students from within the University of Hawai'i System

Students transferring into UH Hilo from a UH system community college in Fall 2011 or later and who have completed the basic/foundation requirement at their previous campus will be exempt from the UH Hilo [General Education basic requirements](#); similarly, such students who have completed the area/diversification requirement at their previous campus will be exempt from the UH Hilo [General Education area requirements](#). **See the UH system policy (May 2010) on transfer of GE core requirements among UH system campuses.**

However, all students must also complete the UH Hilo [Integrative requirements](#) in Writing Intensive, Hawai'i Pan-Pacific, and Global and Community Citizenship, as well as all major and other UH Hilo requirements.

Other Transfer Students

All other transfer students must fulfill the [General Education Core requirements](#) and [Integrative requirements](#) as well as other requirements for their major and degree, as stated in this catalog.

General Education Core: Basic Requirements (All Majors)

Courses are certified for a period of five years to meet specific categories of the General Education requirements and the Integrative requirements for a Bachelor's degree. Courses and the effective year each was certified to meet either a General Education or Integrative requirement are listed below by course alpha, number, title and effective year. For further information, see the [Catalog Choice and Retroactivity](#) policy.

1. No course may be counted for more than one General Education CORE requirement. Students are cautioned that, in a few instances, a single course has been certified for more than one of the General Education Basic or Area Requirements. However, students completing such a course may only receive credit toward a single such 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.
2. Courses which meet both major requirements and General Education Core or Integrative requirements may be simultaneously counted for both. (Courses are not excluded from meeting the UH Hilo General Education requirements solely because they also may be required for a major.)
3. Courses which are certified for a General Education Core requirement and an Integrative requirements may be simultaneously

counted for both.

1. English Composition Requirement (3 semester hours)

Students must successfully complete a first-year writing course. This requirement is met by taking one of the following courses. These courses are also listed on the [GF. Composition Requirement website](#).

Select one:

- ENG 100 Composition I (3) [eff. 2011]
- ENG 100T Composition with Tutorial (3) [eff. 2011]
- ESL 100 Composition/Nonnative Speakers (3) [eff. 2011]
- ESL 100T Composition/Non-nativeTutorial (3) [eff. 2011]
- ENG 100H Honors Expository Writing (3) [eff. 2011]

It is recommended that students complete the English composition requirement within their first 24 semester hours at UH Hilo.

Entering students who do not possess an SAT or ACT essay score, transfer students who have not transferred a course equivalent to English 100, and all students who are non-native speakers of English must take the UH Hilo Writing Placement Examination. This will determine into which English course you are placed.

2. Language Arts (3 semester hours)

Students select a semester course of foreign language study, linguistics or second level English to fulfill this requirement. These courses engage students in the process of constructing, analyzing, and employing language. Additional courses may be certified for this category. These courses are also listed on the [GL. Language Arts Requirements website](#).

Select one:

- CHNS 101 Elementary Chinese I (4) [eff. 2011]
- CHNS 102 Elementary Chinese II (4) [eff. 2011]
- CHNS 107 Accelerated Elementary Chinese (8) [eff. 2012]
- CHNS 200 Conversational CHNS Business (3) [eff. 2015]
- CHNS 201 Intermediate Chinese I (4) [eff. 2015]
- CHNS 202 Intermediate Chinese II (4) [eff. 2015]
- COM 270 Intro to Theories of Human Com (3) [eff. 2011]
- CS 200 Web Technology I (3) [eff. 2011]
- ENG/WS 204 Intr Race/Gender Film Studies (3) [eff. 2011]
- ENG 200 Intro to Literary Genres (3) [eff. 2011]
- ENG 200G Intro Graphic Novels & Comics (3) [eff. 2016]
- ENG/WS 206 Intro to Popular Culture (3) [eff. 2011]
- ENG 240 British Lit's Greatest Hits (3) [eff. 2014]
- ENG/WS 257 Multicultural Literature (3) [eff. 2011]
- ENG 286A Intro to Fiction Writing (3) [eff. 2011]
- ENG 286B Intro to Poetry Writing (3) [eff. 2011]
- ENG 287 Introduction to Rhetoric (3) [eff. 2016]
- ENG 290 Literature and Medicine (3) [eff. 2011]
- ENG 459 [eff. 2016]
- FIL 101 Elementary Filipino I (4) [eff. 2011]
- FIL 102 Elementary Filipino II (4) [eff. 2014]
- FIL 200 Inter Conversational Filipino (3) [eff. 2014]
- FR 101 Elementary French I (4) [eff. 2011]
- FR 102 Elementary French II (4) [eff. 2011]
- HAW 101 Elementary Hawaiian I (4)/107 [eff. 2011]
- HAW 102 Elem Hawaiian II (4)/107 [eff. 2011]
- HAW 201 Intermediate Hawaiian I (4)/207 [eff. 2011]
- HAW 202 Inter Hawaiian II (4)/207 [eff. 2011]



- JPNS/JPST 101 Elementary Japanese I (4) [eff. 2011]
- JPNS/JPST 102 Elementary Japanese II (4) [eff. 2011]
- JPNS 107 Accelerated Element Japanese (8) [eff. 2012]
- JPNS/JPST 201 Intermediate Japanese I (4) [eff. 2011]
- JPNS/JPST 202 Intermediate Japanese II (4) [eff. 2011]
- JPNS/JPST 301 Third-Year Japanese I (3) [eff. 2015]
- JPNS/JPST 302 Third-Year Japanese II (3) [eff. 2015]
- KHAW 103 First Lvl Trans Hawn Immersion (4) [eff. 2013]
- KHAW 104 First Lvl Partial Hawn Immers (4) [eff. 2013]
- KHAW 108 Accel First Lvl Hawn Immersion (8) [eff. 2013]
- KHAW 133 First Lvl Hawn for Speakers (4) [eff. 2013]
- KHAW 203 Second Lvl Univ Hawn Immers I (4) [eff. 2013]
- KHAW 204 Second Lvl Univ Hawn Immers II (4) [eff. 2013]
- KHAW 208 Accel Sec Lvl Univ Hawn Immers (8) [eff. 2013]
- KHAW 233 Second Lvl Hawn for Speakers (4) [eff. 2013]
- KIND 240 Culture Revitalization Movemnt (3) [eff. 2012]
- KOR 101 Elementary Korean I (4) [eff. 2015]
- KOR 102 Elementary Korean II (4) [eff. 2015]
- LING 102 Introduction to Linguistics (3) [eff. 2011]
- LING 133A Elem Indig Lang: Systematic (3),B,C,D,E,F [eff. 2013]
- LING 233A Inter Indig Langs: Systematic (3),B,C,D,E,F [eff. 2013]
- SPAN 101 Elementary Spanish I (4) [eff. 2011]
- SPAN 102 Elementary Spanish II (4) [eff. 2011]
- SPAN 201 Intermediate Spanish I (4) [eff. 2011]
- SPAN 202 Interm Spanish II (4) [eff. 2011]
- WS 204 Intr Race/Gender Film Studies (3)
- WS 206 Intro to Popular Culture (3)
- WS 257 Multicultural Literature (3)

3. Quantitative Reasoning (6 semester hours)

Students must select a one semester lower-division course in Mathematics AND a second course in Mathematics or another field. These courses enable students to understand the use of mathematical or symbolic concepts and require students to develop skills in chains of reasoning from data to conclusions. These courses are also listed on the [GQ. Quantitative Reasoning Requirement website](#).

Select one course from List A and one course from either List A or List B:

List A:

- MATH 100 Survey Of Math (3) [eff. 2011]
- MATH 140X Precalculus (4) [eff. 2011] (Formerly offered as MATH 104)
- MATH 135 Precalc: Elementary Functions (3) [eff. 2011] (Formerly offered as MATH 104F)
- MATH 140 Precalc:Trig/Analytic Geometry (3) [eff. 2011] (Formerly offered as MATH 104G)
- MATH 111 MS Office Tools for Math & Sci (3) [eff. 2011]
- MATH 125 Applied Calculus (3) [eff. 2011] (Formerly offered as MATH 115)
- MATH 121 Intro Stats & Prob (3) [eff. 2011]
- MATH 205 Calculus I (4) [eff. 2011]
- MATH 206 Calculus II (4) [eff. 2011]
- MATH 231 Calculus III (3) [eff. 2011]

List B:

- AGBU 110 Microcomputing for Ag (3) [eff. 2012]
- ASTR 180 Princ Of Astron I (3) [eff. 2011]
- CHEM 100 Chemistry and Society (3) [eff. 2012]
- CS 102 MS Office Tools for Math & Sci (3) [eff. 2011]

- CS 138 Intro to Computing with Robots (3) [eff. 2015]
- CS 282 Practical Comp for Sci & Engg (3) [eff. 2012]
- ECON 131 Intro To Macroeconomics (3) [eff. 2011]
- ECON 340 Money & Banking (3) [eff. 2011]
- ED 243 Intro to Math for Elem Tch (3) [eff. 2016]
- ENSC 100 Intro to Environmental Science (3) [eff. 2016]
- FIN 220 Personal Finance (3) [eff. 2015]
- GEOG 201 Interp Geog Data (3) [eff. 2012]
- GEOL 170 Volcanoes and Earthquakes (3) [eff. 2012]
- MARE 250 Statistical Apps in Marine Sci (3) [eff. 2013]
- PHIL 345 Symbolic Logic (3) [eff. 2011]
- PHYS 170L Gen Phys I Lab (1) [eff. 2016]
- PHYS 272L Gen Phys II Lab (1) [eff. 2016]
- POLS 280 Methods of Research (3) [eff. 2015]
- QBA 260 Business Statistics (3) [eff. 2011]
- SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1) [eff. 2011]

4. World Cultures (6 semester hours)

Students select two semester courses. These courses offer a broad, integrated analysis of cultural, economic, political, scientific, philosophical, religious and social developments that recognizes the diversity of human societies, diverse cultural traditions and cross-cultural interaction. These courses are also listed on the [GW. World Cultures Requirement website](#)

Select two:

- AG 100 Intro to Agricultural Sciences (3) [eff. 2013]
- AG 230 Sustainable Agriculture (3) [eff. 2011]
- ANTH 150 Humankind Emerging (3) [eff. 2017]
- ANTH 205 Cultural Anthropology (3) [eff. 2011] (Formerly offered as ANTH 100)
- ANTH/WS 320 Cross-Cultural Study Of Women (3) [eff. 2011]
- ANTH/WS 324 Culture, Sex And Gender (3) [eff. 2011]
- ANTH 372 Culture through Film (3) [eff. 2011]
- ART 101 Intro To Visual Arts (3) [eff. 2016]
- ART 175 Survey of World Art I [eff. 2014]
- ART 176 Survey of World Art II [eff. 2014]
- ENG 200G Intro Graphic Novels & Comics (3) [eff. 2016]
- ENG/WS 201 Global Cinema (3) [eff. 2011]
- ENG/WS 202 Literature of Human Rights (3) [eff. 2011]
- ENG 253 World Lit: Class-17th Century (3) [eff. 2011]
- ENG 254 World Lit: 17th Cent-Present (3) [eff. 2011]
- ENG 275 Literature of the Earth (3) [eff. 2011]
- ENG 289 The Rhetoric of Food (3) [eff. 2011]
- ENG 302 Studies in Myth and Folklore (3) [eff. 2016]
- GEOG 102 World Regional Geography (3) [eff. 2011]
- HIST 151 World History to 1500 (3) [eff. 2011]
- HIST 152 World History since 1500 (3) [eff. 2011]
- KIND 240 Culture Revitalization Movemnt (3) [eff. 2012]
- LING 432 Critical Applied Linguistics (3) [eff. 2013]
- PHIL 304 Ethics and Cultural Diversity (3) [eff. 2015]
- POLS 251 Intro to Comparative Politics (3) [eff. 2011]
- POLS 348 International Human Rights (3) [eff. 2017]
- SOC/WS 363 Globalization, Gender, Fashion (3) [eff. 2016]
- SOC/JPST 414 Global Social Movements & Japan (3) [eff. 2016]
- SOC 420 Sem in Social Institutions (3) [eff. 2016]
- SPAN 369 Lat&Glob Docum&Film: Crit Analy (3) [eff. 2015]
- WS 357 Women and Religion (3) [eff. 2011]



General Education Core: Area Requirements (All Majors)

Courses are certified for a period of five years to meet specific categories of the General Education requirements and the Integrative requirements for a Bachelor's degree. Courses and the effective year each was certified to meet either a General Education or Integrative requirement are listed below by course alpha, number, title and effective year. For more information, see the [Catalog Choice and Retroactivity](#) policy.

1. No course may be counted for more than one General Education CORE requirement. Students are cautioned that, in a few instances, a single course has been certified for more than one of the General Education Basic or Area Requirements. However, students completing such a course may only receive credit toward a single such 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.
2. Courses which meet both major requirements and General Education Core or Integrative requirements may be simultaneously counted for both. (Courses are not excluded from meeting the UH Hilo General Education requirements solely because they also may be required for a major.)
3. Courses which are certified for a General Education Core requirement and an Integrative requirement may be simultaneously counted for both.

1. Humanities Electives (6 semester hours)

Students select one semester course in one area and a second semester course in a different area. These courses use the terminology of the visual, performing, or creative arts; or of the study of philosophy, language, communication, or religion; or of literary representations. These courses are also listed on the [GH: Humanities Requirement Web Page](#)

- ART 101 Intro To Visual Arts (3) [eff. 2011]
- ART 175 Survey of World Art I (3) [eff. 2014]
- ART 176 Survey of World Art II (3) [eff. 2014]
- ART 280 Aspects Of Asian Art (3) [eff. 2011]
- ART 380 Art Of China (3) [eff. 2017]
- ART 381 Art Of Japan (3) [eff. 2017]
- BIOL/PHIL 392 Biology & Philosophy (3) [eff. 2011]
- CHNS 101 Elementary Chinese I (4) [eff. 2011]
- CHNS 102 Elementary Chinese II (4) [eff. 2011]
- CHNS 107 Accelerated Elementary Chinese (8) [eff. 2012]
- CHNS 200 Conversational CHNS Business (3) [eff. 2015]
- CHNS 201 Intermediate Chinese I (4) [eff. 2015]
- CHNS 202 Intermediate Chinese II (4) [eff. 2015]
- CHNS 350 Chinese Folklore and Symbolism (3) [eff. 2014] (Formerly offered as CHNS 250)
- CHNS 360 Chns Hist Culture through Film (3) [eff. 2014] (Formerly offered as CHNS 260)
- CHNS 381 Chns Cult thru Arch & Garden (3) [eff. 2014]
- COM 100 Human Comm in Diverse Society (3) [eff. 2012]
- COM 270 Intro to Theories of Human Com (3) [eff. 2011]
- DNCE 160 Ballet I (3) [eff. 2014]
- DNCE 180 Jazz Dance I (3) [eff. 2014]
- DNCE 190 Modern Dance I (3) [eff. 2014]
- DNCE 251 Intro To Dance (3) [eff. 2011]
- DNCE 260 Ballet II (3) [eff. 2014]
- DNCE 280 Jazz Dance II (3) [eff. 2014]
- DNCE 290 Modern Dance II (3) [eff. 2014]
- DNCE 360 Ballet III (3) [eff. 2014]
- DNCE 460 Ballet IV (3) [eff. 2014]
- DNCE 419 Dance In Education (3) [eff. 2012]
- DRAM 271 Introduction to Theatre (3) [eff. 2011]
- DRAM 419 Drama in Education (3) [eff. 2012]
- ENG 200A Lit Genres: Short Story/Novel (3), B, C, D, E, F [eff. 2011] G [eff. 2016]
- ENG/WS 201 Global Cinema (3) [eff. 2011]
- ENG/WS 202 Literature of Human Rights (3) [eff. 2011]
- ENG/WS 204 Intr Race/Gender Film Studies (3) [eff. 2011]
- ENG 205 Hawai'i on Screen (3) [eff. 2011]
- ENG/WS 206 Intro to Popular Culture (3) [eff. 2011]
- ENG 240 British Lit's Greatest Hits (3) [eff. 2014]
- ENG 253 World Lit: Class-17th Century (3) [eff. 2011]
- ENG 254 World Lit: 17th Cent-Present (3) [eff. 2011]
- ENG/WS 257 Multicultural Literature (3) [eff. 2011]
- ENG 275 Literature of the Earth (3) [eff. 2011]
- ENG 286A Intro to Fiction Writing (3) [eff. 2011]
- ENG 286B Intro to Poetry Writing (3) [eff. 2011]
- ENG 287 Introduction to Rhetoric (3) [eff. 2016]
- ENG 289 The Rhetoric of Food (3) [eff. 2011]
- ENG 290 Literature and Medicine (3) [eff. 2011]
- ENG 323 The Literature of Hawai'i (3) [eff. 2011]
- ENG 345 Children & Literature (3) [eff. 2011]
- ENG 355 Women in Modern Lit & Film (3) [eff. 2012]
- ENG/WS 423 Post-Colonial Literature (3) [eff. 2011]
- ENG 448 Graphic Novels and Comics (3) [eff. 2016]
- ENG 459 [eff. 2016]
- FIL 101 Elementary Filipino I (4) [eff. 2016]
- FIL 102 Elementary Filipino II (4) [eff. 2014]
- FIL 200 Inter Conversational Filipino (3) [eff. 2014]
- FIL 330 Filipino Films (3) [eff. 2014]
- FIL 354 Filipino Culture (3) [eff. 2014]
- FR 101 Elementary French I (4) [eff. 2011]
- FR 102 Elementary French II (4) [eff. 2011]
- HAW 101 Elementary Hawaiian I (4) [eff. 2011]
- HAW 102 Elem Hawaiian II (4) [eff. 2011]
- HAW 201 Intermediate Hawaiian I (4) [eff. 2011]
- HAW 202 Inter Hawaiian II (4) [eff. 2011]
- HWST/MUS 175 Intro Music Of Polynesia (3) [eff. 2013]
- HWST/MUS 176 Hist & Dev Of Hawn Music (3) [eff. 2011]
- HWST 211 Hawaiian Ethnobotany (3) [eff. 2011]
- HWST 213 Hawaiian Ethnozoology (3) [eff. 2011]
- JPNS/JPST 101 Elementary Japanese I (4) [eff. 2011]
- JPNS/JPST 102 Elementary Japanese II (4) [eff. 2011]
- JPNS 107 Accelerated Element Japanese (8) [eff. 2012]
- JPNS/JPST 201 Intermediate Japanese I (4) [eff. 2011]
- JPNS/JPST 202 Intermediate Japanese II (4) [eff. 2011]
- JPNS/JPST 301 Third-Year Japanese I (3) [eff. 2015]
- JPNS/JPST 302 Third-Year Japanese II (3) [eff. 2015]
- JPNS/JPST 361 Feminism in Japan (3) [eff. 2017]
- JPNS/JPST 382 Gender & Min Japanese Comics (3) [eff. 2011]
- JPNS/JPST/ENG 365 Japanese Lit in English (3) [eff. 2013]
- JPST/JPNS/DRAM 383 Japanese Theatre & Performance (3) [eff. 2011]
- JPST/JPNS 385 Postwar Japn thru Film & Lit (3) [eff. 2011]
- JPST/JPNS 451 Structure Of Japanese I (3) [eff. 2014]
- KHAW 103 First Lvl Trans Hawn Immersion (4) [eff. 2013]
- KHAW 104 First Lvl Partial Hawn Immers (4) [eff. 2013]
- KHAW 108 Accel First Lvl Hawn Immersion (8) [eff. 2013]
- KHAW 133 First Lvl Hawn for Speakers (4) [eff. 2013]
- KHAW 203 Second Lvl Univ Hawn Immers I (4) [eff. 2013]
- KHAW 204 Second Lvl Univ Hawn Immers II (4) [eff. 2013]
- KHAW 208 Accel Sec Lvl Univ Hawn Immers (8) [eff. 2013]
- KHAW 233 Second Level Hawn for Speakers (4) [eff. 2013]



- KOR 101 Elementary Korean I (4) [eff. 2015]
- KOR 102 Elementary Korean II (4) [eff. 2015]
- LANG/JPST 200 Intro to Jpns & Chns Studies (3) [eff. 2017]
- LING 102 Introduction to Linguistics (3) [eff. 2011]
- LING 133A Elem Indig Lang: Systematic (3),B,C,D,E,F [eff. 2013]
- LING 233A Inter Indig Langs: Systematic (3),B,C,D,E,F [eff. 2013]
- LING 412 Discourse Analysis (3) [eff. 2011]
- MUS 102 University Chorus (3) [eff. 2015]
- MUS 141 Computer Music (3) [eff. 2013]
- MUS 160 Intro to Music Literature (3) [eff. 2017]
- MUS 163 American Music & Popular Cult (3) [eff. 2017]
- MUS 165 Introduction To Jazz (3) [eff. 2017]
- MUS 176 Hist & Dev Of Hawn Music (3) [eff. 2011]
- MUS 180 Elementary Music Theory (3) [eff. 2014]
- MUS 195 Contemporary Island Music (3) [eff. 2017]
- MUS 365 History of Western Music I (3) [eff. 2017]
- MUS 366 History Of Western Music II (3) [eff. 2017]
- MUS 404 Kapili Choir (3) [eff. 2015]
- MUS 465 The World and the Composer (3) [eff. 2017]
- PHIL 100 Intro to Philosophy (3) [eff. 2011]
- PHIL 180 Love and Sex (3) [eff. 2015]
- PHIL 209 Reasoning (3) [eff. 2011]
- PHIL 211 History of Ancient Philosophy (3) [eff. 2011]
- PHIL 213 History of Modern Philosophy (3) [eff. 2011]
- PHIL 220 Social Ethics (3) [eff. 2011]
- PHIL 230 Belief, Knowledge & Truth (3) [eff. 2011]
- PHIL 300 History of Indian Philosophy (3) [eff. 2011]
- PHIL 301 Hist Of Chinese Philosophy (3) [eff. 2011]
- PHIL 302 Hist Of Buddhist Philosophy (3) [eff. 2011]
- PHIL 304 Ethics and Cultural Diversity (3) [eff. 2015]
- PHIL 310 Metaphysics (3) [eff. 2011]
- PHIL 313 19th Century Philosophy (3) [eff. 2016]
- PHIL 315 Ethical Theory (3) [eff. 2011]
- PHIL 323 Professional Ethics (3) [eff. 2011]
- PHIL 327 Bioethics (3) [eff. 2014]
- PHIL 329 Environmental Ethics (3) [eff. 2015]
- PHIL 330 Philosophy of Art (3) [eff. 2011]
- PHIL 340 Philosophy Of Religion (3) [eff. 2011]
- PHIL 343 Comparative Philosophy (3) [eff. 2016]
- PHIL 355 Philosophy of Sport (3) [eff. 2016]
- PHIL 370 American Philosophy (3) [eff. 2015]
- PHIL 375 Feminist Philosophy (3) [eff. 2015]
- PHIL 381 Philosophy Of Wittgenstein (3) [eff. 2011]
- PHIL 390 History & Phil of Science (3) [eff. 2011]
- PHIL/WS 393 Normality, Abnormality & Soc (3) [eff. 2011]
- PHIL/JPST 430 Philosophy of Zen (3) [eff. 2011]
- PHIL 435 Philosophy Of Tao (3) [eff. 2011]
- PHIL/JPST 450 Mahayana Buddhist Phil (3) [eff. 2011]
- SPAN 101 Elementary Spanish I (4) [eff. 2011]
- SPAN 102 Elementary Spanish II (4) [eff. 2011]
- SPAN 201 Intermediate Spanish I (4) [eff. 2011]
- SPAN 202 Interm Spanish II (4) [eff. 2011]
- SPAN/WS 368 Gender & Women LatAm Lit/Film (3) [eff. 2011]
- SPAN 369 Lat&Glob Docum&Film: Crit Analy (3) [eff. 2015]
- WS 359 Music and Activism (3) [eff. 2017]
- WS 393 Normality, Abnormality & Soc (3) [eff. 2011]

2. Social Sciences Electives (6 semester hours)

Students select one semester course in one area and a second semester course in a different area. These courses use the terminology of theories, structures, or processes in the social or psychological sciences and

engage students in the systematic study of human behavior, both social and individual. These courses are also listed on the [GS Social Science Requirement Web Page](#)

- ANTH 150 Humankind Emerging (3) [eff. 2017]
- ANTH 205 Cultural Anthropology (3) [eff. 2011] *(Formerly offered as ANTH 100)*
- ANTH 210 Archaeology (3) [eff. 2011] *(Formerly offered as ANTH 110)*
- ANTH 215 Human Evolution (3) [eff. 2015] *(Formerly offered as ANTH 115)*
- ANTH/WS 320 Cross-Cultural Study Of Women (3) [eff. 2011]
- ANTH/WS 324 Culture, Sex And Gender (3) [eff. 2011]
- ANTH 372 Culture through Film (3) [eff. 2011]
- ANTH 385 Hawn & Pacific Prehistory (3) [eff. 2011]
- ANTH 389 Cultural Resource Management (3) [eff. 2011]
- ANTH 415 Medical Anth (3) [eff. 2014]
- ANTH 485 Applied Anthropology (3) [eff. 2014]
- BUS 100 Intro To Business (3) [eff. 2011]
- COM 270 Intro to Theories of Human Com (3) [eff. 2012]
- ECON 100 Intro To Economics (3) [eff. 2011]
- ECON 130 Intro To Microeconomics (3) [eff. 2011]
- ECON 131 Intro To Macroeconomics (3) [eff. 2011]
- ECON 340 Money & Banking (3) [eff. 2011]
- ECON 416 Asia-Pacific Econ Integration (3) [eff. [ef]. 2012]
- ED 210 Introduction to Teaching (3) [eff. 2012]
- FIL 330 Filipino Films (3) [eff. 2014]
- FIL 333 Filipinos in Hawaii (3) [eff. 2016]
- FIL 354 Filipino Culture (3) [eff. 2014]
- FIN 220 Personal Finance (3) [eff. 2015]
- GEOG 102 World Regional Geography (3) [eff. 2011]
- GEOG 103 Geog And Contemp Soc (3) [eff. 2011]
- GEOG 107 Hawaii in the Pacific (3) [eff. 2011]
- GEOG 312 Food and Societies (3) [eff. 2013]
- GEOG/WS 430 Gender, Place and Environment (3) [eff. 2011]
- HIST 151 World History to 1500 (3) [eff. 2011]
- HIST 152 World History since 1500 (3) [eff. 2011]
- HIST 284 History of Hawaii (3) [eff. 2011]
- HIST/JPST 314 Hist of Jpn III: 20th Cent-Pre (3) [eff. 2014]
- HIST 316 Pacific History I: To 1900 (3) [eff. 2011]
- HIST 317 Pacific History II: From 1900 (3) [eff. 2011]
- HIST 318 Hist China III: 20th Cent-Pres (3) [eff. 2014]
- HIST 324 Militarization in the Pacific (3) [eff. 2016]
- HIST 327 Environmental History--Pacific (3) [eff. 2016]
- HIST 332 Hawaiian Kingdom (3) [eff. 2016]
- HWST 111 Hawaiian 'Ohana (3) [eff. 2011]
- JPNS/JPST 361 Feminism in Japan (3) [eff. 2017]
- LING 432 Critical Applied Linguistics (3) [eff. 2013]
- MGT 333 International Business Mgt (3) [eff. 2011]
- NURS 350 Transcultural Care & Hlth Prom (3) [eff. 2011]
- NURS 457 Collaborative Hlt Care, Ldrshp (3) [eff. 2011]
- POLS 101 Am Politics: National (3) [eff. 2011]
- POLS 101G Am Politics: Ntl Citizenship (3) [eff. 2013]
- POLS 201 Intro to Political Theory (3) [eff. 2011]
- POLS 220 Intro to Law and Legality (3) [eff. 2011]
- POLS 242 Intro To World Politics (3) [eff. 2011]
- POLS 251 Intro to Comparative Politics (3) [eff. 2011]
- POLS 280 Methods of Research (3) [eff. 2015]
- POLS 304 Liberalism and Globalism (3) [eff. 2011]
- POLS 331 Presidency And Congress (3) [eff. 2011]
- POLS 334 Pol Bvr, Campaigns & Elections (3) [eff. 2015]
- POLS 342 International Law (3) [eff. 2017]
- POLS 343 Int'l Conflict Management (3) [eff. 2017]
- POLS 346 International Organizations (3) [eff. 2017]



- POLS 348 International Human Rights (3) [eff. 2017]
- POLS 351 Politics Of China (3) [eff. 2011]
- POLS/J PST 353 Politics Of Japan (3) [eff. 2011]
- POLS 360 Public Administration (3) [eff. 2011]
- POLS 391 Internship (3-12) [eff. 2011]
- POLS 433 Politics, Media & Public Opin (3) [eff. 2015]
- POLS 481 Government Internship (3-15) [eff. 2015]
- PSY 100 Survey Of Psy (3) [eff. 2011]
- PSY 312 Evaluation Research (3) [eff. 2011]
- PSY 323 Community Psychology (3) [eff. 2011]
- PSY 390 Industrial & Organizationl Psy (3) [eff. 2011]
- PSY 445 Practicum in Psychology (3) [eff. 2011]
- PSY 475 Asian American Psychology (3) [eff. 2011]
- SOC 100 Principles Of Sociology (3) [eff. 2011]
- SOC 240 Social Psychology (3) [eff. 2011]
- SOC 260 Social Problems (3) [eff. 2011]
- SOC 280 Statistical Reasoning (3) [eff. 2011]
- SOC 280L Lab in Statistical Reasoning (1) [eff. 2011]
- SOC 320 Social Stratification (3)/WS 321 Social Stratification (3) [eff. 2016]
- SOC 370 Political Economy of Hawai'i (3) [eff. 2016]
- SOC 408 Island Feminism (3) [eff. 2016]
- SOC/J PST 414 Global Social Movements & Japan (3) [eff. 2016]
- SOC 420 Sem in Social Institutions (3) [eff. 2016]
- SOC 480 Practicum in Social Research (3) [eff. 2011]
- WS 151 Intro Gender & Women's Studies (3) [eff. 2011]
- WS 352 Gender and Sexuality (3) [eff. 2012]
- WS 357 Women and Religion (3) [eff. 2011]
- WS 358 Women in Christianity (3) [eff. 2017]

3. Natural Sciences Electives (7 semester hours, including 1 semester hour of an associated laboratory)

Students select one semester course in one area and a second semester course with its associated lab in a different area. These courses use the terminology of computational, physical or biological sciences and include knowledge and theories of the computational, physical or biological sciences. Additional courses may be certified, the complete list can be found on the [GN: Natural Sciences Requirement Web Page](#)

Certified lecture courses with certified labs

- ASTR 110-110L General Astronomy (3), Gen Astronomy Lab (1) [eff. 2011]
- ASTR 150-110L Life in The Universe (3), Gen Astronomy Lab (1) [eff. 2015]
- ASTR 180-110L Princ Of Astron I (3), Gen Astronomy Lab (1) [eff. 2011]
- BIOL 101-101L General Biology (3), Gen Biol Lab (1) [eff. 2011]
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) [eff. 2012]
- CHEM 100-100L Chemistry and Society (3), Chemistry and Society Lab (1) [eff. 2013]
- CHEM 111 *Changed to CHEM 100 Chemistry and Society (3)* [eff. Fall 2014]
- CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) [eff. 2011] (*Formerly offered as CHEM 114-114L*)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) [eff. 2011] (*Formerly offered as CHEM 124-124L*)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1) [eff. 2011] (*Formerly offered as CHEM 125-125L*)

- GEOL 100-100L Environmental Earth Science (3), Environmental Earth Sci Lab (1) or GEOL 100-111L Environmental Earth Science (3), Understanding the Earth Lab (1) [eff. 2011]
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1) [eff. 2011]
- GEOL 170 Volcanoes and Earthquakes (3) [eff. 2012] and GEOL 111L Understanding the Earth Lab (1) [eff. 2011]
- GEOL 205-111L Geology Of Hawaiian Islands (3), Understanding the Earth Lab (1) [eff. 2011]
- MARE 140-140L Intro to Hawaiian Coral Reefs (3), Intro Hawaiian Coral Reefs Lab (1) [eff. 2011]
- MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1) [eff. 2011]
- MARE 201-201L Oceanography (3), Oceanography Lab (2) [eff. 2011]
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) [eff. 2016]
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1) [eff. 2016]

Certified lecture courses without labs

- AG 100 Intro to Agricultural Sciences (3) [eff. 2011]
- AG 230 Sustainable Agriculture (3) [eff. 2011]
- AGBU 110 Microcomputing for Ag (3) [eff. 2012]
- ANSC 175 Animal Behavior (3) [eff. 2011]
- ANSC 254 Fundamentals of Nutrition (3) [eff. 2016]
- AQUA 262 Intro Aquaculture (3) [eff. 2012]
- ASTR 110 General Astronomy (3) [eff. 2011]
- ASTR 150 Life in The Universe (3) [eff. 2015]
- ASTR 180 Princ Of Astron I (3) [eff. 2011]
- BIOL 101 General Biology (3) [eff. 2011]
- BIOL 156 Nat Hist & Conservatn Hawn Isl (3) [eff. 2013]
- CHEM 100 Chemistry and Society (3) [eff. 2012]
- CHEM 141 Surv Organ Chem & Biochem (3) [eff. 2012]
- CHEM 161 General Chemistry I (3) [eff. 2011]
- CHEM 162 General Chemistry II (3) [eff. 2012]
- CS 100 Prin Of Computer Sci (3) [eff. 2011]
- CS 101 Digital Tools for Info World (3) [eff. 2011]
- CS 102 MS Office Tools for Math & Sci (3) [eff. 2011]
- CS 130 Beg Graphics, Game Programg (3) [eff. 2011]
- CS 135 Animation Programming (3) [eff. 2011]
- CS 138 Intro to Computing with Robots (3) [eff. 2015]
- CS 150 Intro To Computer Science I (3) [eff. 2011]
- CS 201 Web Technology II (3) [eff. 2011]
- CS 282 Practical Comp for Sci & Engg (3) [eff. 2012]
- ENSC 100 Intro to Environmental Science (3) [eff. 2011]
- GEOG 101 Geog & Nat Environ (3) [eff. 2012]
- GEOL 170 Volcanoes and Earthquakes (3) [eff. 2012]
- GEOL 205 Geology Of Hawaiian Islands (3) [eff. 2011]
- GEOL 300 Adv Environmental Earth Sci (3) [eff. 2011]
- HORT 262 Princ Of Hort (3) [eff. 2012]
- KES 206 Basic Human Movement (3) [eff. 2011]
- KES 207 Basic Human Nutrition (3) [eff. 2011]
- MARE 110 Current Issues in Marine Sci (3) [eff. 2011]
- MARE 140 Intro to Hawaiian Coral Reefs (3) [eff. 2011]
- MARE 156 Nat Hist & Conservatn Hawn Isl (3) [eff. 2011]
- MARE 171 Marine Biology-Diversity (3) [eff. 2011]
- MARE 172 Marine Biology-Cellular Proc (3) [eff. 2011]
- MARE 201 Oceanography (3) [eff. 2011]
- MARE 282 Global Change (3) [eff. 2011]
- MARE 310 The Atoll Ecosystem (3) [eff. 2011]
- MATH 100 Survey Of Math (3) [eff. 2011]
- MATH 140X Precalculus (4) [eff. 2011] (*Formerly offered as MATH 104*)



- MATH 135 Precalc: Elementary Functions (3) [eff. 2011] (Formerly offered as MATH 104F)
- MATH 140 Precalc: Trig/Analytic Geometry (3) [eff. 2011] (Formerly offered as MATH 104G)
- MATH 125 Applied Calculus (3) [eff. 2011] (Formerly offered as MATH 115)
- MATH 121 Intro Stats & Prob (3) [eff. 2011]
- MATH 205 Calculus I (4) [eff. 2011]
- MATH 206 Calculus II (4) [eff. 2011]
- MATH 231 Calculus III (3) [eff. 2011]
- NRES 196 Intro to Natural Resource Mgmt (3) [eff. 2012]
- PHYS 151 College Physics I (3) [eff. 2017]
- PHYS 152 College Physics II (3) [eff. 2017]
- PHYS 110 Physics of Contemporary Issues (3) [eff. 2012]
- PHYS 115 Phys for Liberal Arts (3) [eff. 2011]
- PHYS 151 College Physics I (3) [eff. 2017] (Formerly offered as PHYS 106 College Physics I (3))
- PHYS 152 College Physics II (3) [eff. 2017] (Formerly offered as PHYS 107 College Physics II (3))
- PHYS 170 Gen Phys I: Mechanics (4) [eff. 2016]
- PHYS 272 Gen Phys II: Elec & Magnetism (4) [eff. 2016] (Formerly offered as PHYS 171)
- QBA 260 Business Statistics (3) [eff. 2011]

Integrative Requirements (All Majors)

Courses are certified for a period of five years to meet specific categories of the the Integrative requirements for a Bachelor's degree. Courses and the effective year each was certified to meet the Integrative requirement are listed below by course alpha, number, title and effective year. For more information, see the [Catalog Choice and Retroactivity](#) policy.

1. No course may be counted for more than one General Education CORE requirement. Students are cautioned that, in a few instances, a single course has been certified for more than one of the General Education Basic or Area Requirements. However, students completing such a course may only receive credit toward a single such 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.
2. Courses which meet both major requirements and General Education Core or Integrative requirements may be simultaneously counted for both. (Courses are not excluded from meeting the UH Hilo General Education requirements solely because they also may be required for a major.)
3. Courses which are certified for a General Education Core requirement and an Integrative requirement may be simultaneously counted for both.

Writing Intensive Requirement

Three courses, between 3 to 9 credits total.

Students select three different courses designated "WI," one of which must be numbered 300 or above. Students should be aware that the requirement is for three separate WI courses, regardless of the number of semester hours earned in each course. A "WI" course is a discipline-specific content course in which writing plays a major, integrated role.

"WI" courses are certified each semester and are labeled as such in the semester course schedule.

The WI requirement for transfer students varies depending upon year of entry and transfer credits accepted by UH Hilo. Only after final transfer

credit evaluation can it be determined how many WI courses a transfer student must take. The number of WI courses required for transfer students is displayed below.

Status (No. of accepted credits) ¹	Freshman	Sophomore	Junior	Senior
1995-96	2	2	1	0
1996-97 and later	3	3	2	1

¹ In Fall 2015, the number of credits required for each status changed. See the [Classification of Students: Class Standing](#) for credits required for each class standing.

For further information, visit the [Writing Intensive website](#)

Hawai'i Pan-Pacific Requirement

One 3-credit course.

Students select one semester course designated "HPP." These courses investigate major aspects of the culture, language, economy, history, or natural environment of Hawai'i or of another indigenous culture or nation or region of the Pan-Pacific region (Oceania, Asia, the west coast of the Americas). Courses foster critical understanding of different cultural perspectives, values, and world views and the ability to acquire additional knowledge about these. These courses can also be found on the [HPP: Hawaii Pan Pacific Requirement Web Page](#)

- ANTH 385 Hawn & Pacific Prehistory (3) [eff. 2011]
- ANTH 389 Cultural Resource Management (3) [eff. 2011]
- AQUA 262 Intro Aquaculture (3) [eff. 2012]
- ART 280 Aspects Of Asian Art (3) [eff. 2011]
- ART 380 Art Of China (3) [eff. 2017]
- ART 381 Art Of Japan (3) [eff. 2017]
- BIOL/MARE 156 Nat Hist & Conservatn Hawn Isl (3) [eff. 2011]
- CHNS 101 Elementary Chinese I (4) [eff. 2016]
- CHNS 102 Elementary Chinese II (4) [eff. 2016]
- CHNS 200 Conversational CHNS Business (3) [eff. 2015]
- CHNS 201 Intermediate Chinese I (4) [eff. 2015]
- CHNS 202 Intermediate Chinese II (4) [eff. 2015]
- CHNS 350 Chinese Folklore and Symbolism (3) [eff. 2014] (Formerly offered as CHNS 250)
- CHNS 360 Chns Hist Culture through Film (3) [eff. 2014] (Formerly offered as CHNS 260)
- CHNS 381 Chns Cult thru Arch & Garden (3) [eff. 2014]
- CS 135 Animation Programming (3) [eff. 2011]
- ECON 330 Hawaiian Economy (3) [eff. 2014]
- ECON 416 Asia-Pacific Econ Integration (3) [eff. 2012]
- ENG 205 Hawai'i on Screen (3) [eff. 2011]
- ENG 286A Intro to Fiction Writing (3) [eff. 2011]
- ENG 323 The Literature of Hawai'i (3) [eff. 2011]
- FIL 101 Elementary Filipino I (4) [eff. 2016]
- FIL 102 Elementary Filipino II (4) [eff. 2014]
- FIL 200 Inter Conversational Filipino (3) [eff. 2014]
- FIL 330 Filipino Films (3) [eff. 2014]
- FIL 333 Filipinos in Hawaii (3) [eff. 2016]
- FIL 354 Filipino Culture (3) [eff. 2014]
- GEOG 107 Hawaii in the Pacific (3) [eff. 2011]
- GEOG/PHYS 120 Weather & Climate Hawaii (3) [eff. 2011]
- GEOG 335 Geog Of Oceania (3) [eff. 2013]
- GEOL 205 Geology Of Hawaiian Islands (3) [eff. 2011]
- HAW 101 Elementary Hawaiian I (4) [eff. 2016]
- HAW 102 Elem Hawaiian II (4) [eff. 2016]



- HAW 107 [eff. 2016]
- HAW 201 Intermediate Hawaiian I (4) [eff. 2016]
- HAW 202 Inter Hawaiian II (4) [eff. 2016]
- HAW 207 [eff. 2016]
- HIST 284 History of Hawaii (3) *previously HIST 274* [eff. 2011]
- HIST/JPST 314 Hist of Jpn III: 20th Cent-Pre (3) [eff. 2014]
- HIST 316 Pacific History I: To 1900 (3) [eff. 2011]
- HIST 317 Pacific History II: From 1900 (3) [eff. 2011]
- HIST 318 Hist China III: 20th Cent-Pres (3) [eff. 2014]
- HIST 324 Militarization in the Pacific (3) [eff. 2016]
- HIST 327 Environmental History--Pacific (3) [eff. 2016]
- HIST 332 Hawaiian Kingdom (3) [eff. 2016]
- HWST 111 Hawaiian 'Ohana (3) [eff. 2011]
- HWST/MUS 175 Intro Music Of Polynesia (3) [eff. 2013]
- HWST/MUS 176 Hist & Dev Of Hawn Music (3) [eff. 2011]
- HWST 211 Hawaiian Ethnobotany (3) [eff. 2011]
- HWST 213 Hawaiian Ethnozoology (3) [eff. 2011]
- HWST 474 Hula Kahiko (3) [eff. 2014]
- HWST 496 Hawaiian Studies Seminar (3) [eff. 2013]
- JPNS/JPST 301 Third-Year Japanese I (3) [eff. 2015]
- JPNS/JPST 302 Third-Year Japanese II (3) [eff. 2015]
- JPNS/JPST 361 Feminism in Japan (3) [eff. 2017]
- JPNS/JPST/ENG 365 Japanese Lit in English (3) [eff. 2011]
- JPNS/JPST 382 Gender & Min Japanese Comics (3) [eff. 2011]
- JPST/JPNS/DRAM 383 Japanese Theatre & Performance (3) [eff. 2011]
- JPST/JPNS 385 Postwar Japn thru Film & Lit (3) [eff. 2011]
- JPNS/JPST 451 Structure Of Japanese I (3) [eff. 2014]
- KHAW 103 First Lvl Trans Hawn Immersion (4) [eff. 2013]
- KHAW 104 First Lvl Partial Hawn Immers (4) [eff. 2013]
- KHAW 108 Accel First Lvl Hawn Immersion (8) [eff. 2013]
- KHAW 133 First Lvl Hawn for Speakers (4) [eff. 2013]
- KHAW 203 Second Lvl Univ Hawn Immers I (4) [eff. 2013]
- KHAW 204 Second Lvl Univ Hawn Immers II (4) [eff. 2013]
- KHAW 208 Accel Sec Lvl Univ Hawn Immers (8) [eff. 2013]
- KHAW 233 Second Level Hawn for Speakers (4) [eff. 2013]
- KHAW 453 Hawn Phonetics & Phonol (3) [eff. 2014]
- KOR 101 Elementary Korean I (4) [eff. 2015]
- KOR 102 Elementary Korean II (4) [eff. 2015]
- LANG/JPST 200 Intro to Jpns & Chns Studies (3) [eff. 2017]
- LING 442 Languages in Hawai'i (3) [eff. 2011]
- MARE 140 Intro to Hawaiian Coral Reefs (3) [eff. 2011]
- MARE 140L Intro Hawaiian Coral Reefs Lab (1) [eff. 2011]
- MARE 156 Nat Hist & Conservatn Hawn Isl (3) [eff. 2011]
- MARE 310 The Atoll Ecosystem (3) [eff. 2011]
- MGT 333 International Business Mgt (3) [eff. 2011]
- MUS 176 Hist & Dev Of Hawn Music (3) [eff. 2011]
- MUS 195 Contemporary Island Music (3) [eff. 2017]
- NRES 196 Intro to Natural Resource Mgmt (3) [eff. 2012]
- NURS 350 Transcultural Care & Hlth Prom (3) [eff. 2011]
- PHIL 300 History of Indian Philosophy (3) [eff. 2011]
- PHIL 301 Hist Of Chinese Philosophy (3) [eff. 2011]
- PHIL 302 Hist Of Buddhist Philosophy (3) [eff. 2011]
- PHIL 343 Comparative Philosophy (3) [eff. 2016]
- PHIL/JPST 430 Philosophy of Zen (3) [eff. 2011]
- PHIL 435 Philosophy Of Tao (3) [eff. 2011]
- PHIL 450 Mahayana Buddhist Phil (3)/JPST 450 Mahayana Buddhist Phil (3) [eff. 2011]
- PHPP 525 Complementary Medicine (3) [eff. 2012]
- PHYS 120 Weather & Climate Hawaii (3) [eff. 2011]
- POLS 351 Politics Of China (3) [eff. 2011]
- POLS/JPST 353 Politics Of Japan (3) [eff. 2011]
- PSY 323 Community Psychology (3) [eff. 2011]
- PSY 475 Asian American Psychology (3) [eff. 2011]
- SOC 370 Political Economy of Hawai'i (3) [eff. 2016]

- SOC/JPST 414 Global Social Movements & Japan (3) [eff. 2016]
- SOC 480 Practicum in Social Research (3) [eff. 2011]
- SPAN 202 Interm Spanish II (4) [eff. 2015]

Global and Community Citizenship Requirement

Students select one semester course designated "GCC." This course allows students to apply knowledge gained from their course of study to the global and/or local communities. These courses will provide first-hand awareness of local and global community and environmental issues and encourage interaction with community, business and/or government sectors in order to effect positive change. Additional courses may be certified. These courses can also be found on the [GCC: Global and Community Citizenship Requirement Web Page](#)

- AG 230 Sustainable Agriculture (3) [eff. 2011]
- ANSC 254 Fundamentals of Nutrition (3) [eff. 2016] *(Formerly offered as ANSC 244)*
- ANSC 490 Animal Science Internship (3) [eff. 2015]
- ANTH 389 Cultural Resource Management (3) [eff. 2011]
- ANTH 485 Applied Anthropology (3) [eff. 2014]
- AQUA 262 Intro Aquaculture (3) [eff. 2012]
- BIOL 275 Fund Microbiology (3) [eff. 2012]
- CHEM 111 *Changed to CHEM 100 Chemistry and Society* (3) [eff. 2012]
- COM 344 Sustainability, Com & Culture (3) [eff. 2012]
- COM 359 Intercultural Communication (3) [eff. 2015]
- CS 460 Software Engineering I (3) [eff. 2012]
- DNCE 419 Dance In Education (3) [eff. 2012]
- DRAM 419 Drama in Education (3) [eff. 2012]
- ED 210 Introduction to Teaching (3) [eff. 2012]
- ENG 275 Literature of the Earth (3) [eff. 2011]
- ENG 323 The Literature of Hawai'i (3) [eff. 2011]
- ENTO 262 Intro Beekeeping (3) [eff. 2015]
- FIL 330 Filipino Films (3) [eff. 2014]
- FIL 354 Filipino Culture (3) [eff. 2014]
- GEOG/PHYS 120 Weather & Climate Hawaii (3) [eff. 2011]
- GEOG 312 Food and Societies (3) [eff. 2013]
- GEOG/WS 430 Gender, Place and Environment (3) [eff. 2011]
- GEOL 100 Environmental Earth Science (3) [eff. 2014]
- GEOL 300 Adv Environmental Earth Sci (3) [eff. 2011]
- GEOL 370 Field Methods (3) [eff. 2011]
- HORT 262 Princ Of Hort (3) [eff. 2012]
- HWST 474 Hula Kahiko (3) [eff. 2014]
- HWST 496 Hawaiian Studies Seminar (3) [eff. 2013]
- KES 450 Health Promotion Practicum (3) [eff. 2016]
- KHAW 453 Hawn Phonetics & Phonol (3) [eff. 2014]
- LING 432 Critical Applied Linguistics (3) [eff. 2013]
- LING 442 Languages in Hawai'i (3) [eff. 2013]
- MARE 434 Teaching Marine Science (3) [eff. 2013]
- MARE 435 Marine Field Exper Tchrs (3) [eff. 2013]
- MARE 471 Senior Thesis Report (3) [eff. 2013]
- MARE 480 Senior Internship (3) [eff. 2013]
- MARE 488 Kuula: Integrated Science (3) [eff. 2013]
- MARE 495 Senior Seminar (3) [eff. 2017]
- MGT 425 Bus Planning for New Ventures (3) [eff. 2011]
- NURS 457 Collaborative Hlt Care, Ldrshp (3) [eff. 2011]
- PHIL 304 Ethics and Cultural Diversity (3) [eff. 2015]
- PHIL 370 American Philosophy (3) [eff. 2015]
- PHIL 375 Feminist Philosophy (3) [eff. 2015]
- PHPP 501 Intr Pharm Prac Experiential I (1) [eff. 2012]
- PHPP 503 Intr Pharm Prac Experien III (1) [eff. 2012]



- PHPP 505 Intr Pharm Prac Experiential V (1) [eff. 2012]
- PHYS 110 Physics of Contemporary Issues (3) [eff. 2012]
- PHYS 120 Weather & Climate Hawaii (3) [eff. 2011]
- POLS 101G Am Politics: Ntl Citizenship (3) [eff. 2013]
- POLS 304 Liberalism and Globalism (3) [eff. 2012]
- POLS/GEOG 325 Legal Geography (3) [eff. 2013]
- POLS 334 Pol Bvr, Campaigns & Elections (3) [eff. 2015]
- POLS 348 International Human Rights (3) [eff. 2017]
- POLS 391 Internship (3-12) [eff. 2011]
- POLS 481 Government Internship (3-15) [eff. 2015]
- PSY 323 Community Psychology (3) [eff. 2012]
- PSY 422 Psychology of Sustainability (3) [eff. 2012]
- PSY 445 Practicum in Psychology (3) [eff. 2011]
- SOC 260 Social Problems (3) [eff. 2013]
- SOC/WS 363 Globalization, Gender, Fashion (3) [eff. 2016]
- SOC 391 Internship (3-12) [eff. 2011]
- WS 200 Gender Leadership & Soc Just (3) [eff. 2015]

Upper Division Requirement

The College of Arts and Sciences (CAS), the College of Business and Economics (COBE), and Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK) usually require students to earn at least 45 semester hours in courses at the 300- and 400-level (also called "upper-division courses"). However, for some majors requiring more than 15 semester hours in 100- and 200-level courses, the upper-division course requirement has been reduced. The majors approved for this reduction are:

- Art
- Astronomy
- Biology
- Chemistry
- Environmental Science/Studies
- Geology
- Marine Science
- Natural Science
- Nursing, RN to BSN program
- Performing Arts
- Physics

The program descriptions in this catalog for some of these majors specify a set number of upper-division semester hours which must be completed to graduate. Other programs use a formula to compute the number of upper-division semester hours required of their majors. In these cases, the requirement for 45 semester hours in 300- and 400-level courses is reduced by the number of semester hours over and above 15 in 100- and 200-level courses required for the major.

College of Agriculture, Forestry, and Natural Resource Management (CAFNR)

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Professors:

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- Christopher Lu, Ph.D.
- Bruce Mathews, Ph.D. (Dean)
- William Sakai, Ph.D.
- Michael Shintaku, Ph.D.
- Michael Tanabe, Ph.D.

Associate Professors:

- Norman Arancon, Ph.D.
- Erik Cleveland, Ph.D.
- Armando García-Ortega, Ph.D.
- Maria Haws, Ph.D.
- Yiqing Li, Ph.D.

Assistant Professor:

- Jesse Eiben, Ph.D.

Mission

The purpose of the College of Agriculture, Forestry, and Natural Resource Management (CAFNR) is to provide quality education to assist individuals in acquiring the scientific knowledge, attitudes, and practical skills needed to practice environmentally sound, sustainable agriculture and to be productive and responsible global citizens. The program blends comprehensive classroom instruction with practical, technology-based education through use of the University of Hawai'i at Hilo Agricultural Farm Laboratory and on-campus laboratory facilities. CAFNR graduates skilled agriculturalists who can further develop and promote agriculture in the State of Hawai'i, the United States, the Pacific Basin, and other countries. The College is especially interested in moving agriculture in the tropical and semitropical areas of the Pacific Basin toward more economical and self-sustaining methods.

Goals for Student Learning

A student upon graduating from the College should have acquired the following knowledge, skills, and attitudes:

Knowledge

- Scientific principles on which agriculture is based
- Understanding the application of state-of-the-art techniques, processes, and concepts of environmentally sound agriculture, particularly in tropical and sub-tropical climates, in fields selected from:
 - tropical crops (ornamental plants, orchids, fruits and nuts, and vegetables)
 - aquaculture
 - livestock management (sheep, goats, cattle, swine, and horses)
 - forestry
 - natural resource management
- Ability to develop and adopt innovative approaches to the production, post production, and marketing aspects of agriculture
- An understanding of the role of agriculture in the changing geophysical, economic, and sociocultural world environment



- An understanding of the central role food production plays in supporting sustainable communities

Skills

- Ability to use existing technology for professional purposes
- Proficiency with computer applications and Internet resources, including word processing, data management, presentation software, email communication, and Web information sources
- Effective written and oral communication skills as required for professional objectives
- Mathematical skills required for professional purposes
- Analytic, critical thinking, and problem solving adeptness
- Job finding skills
- Ability to grow one's own food in a sustainable, cost-efficient manner

Attitudes and Values

- Aloha'aina: the commitment to stewardship of natural and agricultural resources
- Aloha, Kokua, 'Ohana, and Laulima: the commitment to work with others to improve agriculture and to benefit the community.

Learning Outcomes for Bachelor of Science in Agriculture ¹

Learning Outcome 1: Acquire, integrate, and apply knowledge of science and technology to managed agricultural systems

- Goal 1. Use multiple sources, including current and older literature, to find, evaluate, organize and manage information related to diverse agricultural systems.
- Goal 2. Demonstrate competence with both laboratory and field-based techniques used in modern agricultural systems.
- Goal 3. Understand how global issues including climate change, energy use, chemical use, water availability and food safety impact sustainability of agricultural systems.

Learning Outcome 2: Synthesize and demonstrate interdisciplinary knowledge and competence in managing and improving crop and (or) animal production systems

- Goal 1. Apply concepts of biology, chemistry, nutrition, pest control, diseases, ecology and genetics to manage and improve plants and (or) animal systems and their products
- Goal 2. Anticipate and recognize problems and make recommendations for addressing the problems using appropriate techniques and skills.
- Goal 3. Develop, identify and employ best management practices that lead to sustainable solutions and outcomes.
- Goal 4. Apply principles of business, marketing and management to an agricultural enterprise in developing the various components of a business plan.

Learning Outcome 3: Appreciate and communicate the diverse impacts of agriculture on people

- Goal 1: Communicate effectively with various audiences using oral,

written, and visual presentation skills, and contemporary networking/social media technologies.

- Goal 2: Describe and assess the influence of plant and (or) animal production systems and its management on environmental sustainability and restoration.

Learning Outcome 4: Demonstrate professionalism and proficiency in skills that relate to agriculture

- Goal 1: Demonstrate leadership and professionalism, and the ability to collaborate and work in teams
- Goal 2. Plan, engage, and learn from actions that demonstrate civic responsibility to community and society.

¹ The terms "agriculture" and "agricultural" as used herein include aquaculture.

Note: More specific goals for the different specialties will be listed in the class syllabi.

Special Aspects of the College

College Facilities

A unique feature of the College 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, floriculture plants, orchids, forestry, vegetables, sustainable agriculture (including integrated nutrient and pest management principles), livestock production, beekeeping, tropical fruit, 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.

On campus, the CAFNRM building provides laboratories for many of the courses in horticulture, plant tissue culture, animal science, entomology, plant pathology, plant physiology, and agribusiness. Students can also utilize the laboratories and campus greenhouses for special projects in directed research courses. Additional laboratory facilities for agronomy, aquaculture, natural resources, and soil science are located beachfront at the Pacific Aquaculture and Coastal Resources Center. Hilo's location in the center of a large farming community provides opportunities for field trips to many diversified agricultural and aquaculture enterprises.

The farm also houses the developing pastures, equine arena, and covered pavilion for courses, flower shows, and community related events.

Note: Shoes or boots are required in certain laboratory classes. In addition, suitable eye protection may be required in certain laboratory classes.

CAFNRM Agriculture Students Organization

This organization is open to every student who joins CAFNRM. Students are expected to help in maintaining a collegial atmosphere that is nurturing and enables the growth of the CAFNRM 'ohana. Through Organization activities, students make life-long friendships, learn business and management skills, participate in group activities, foster collegiality and civility, and bring respect for the agricultural, forestry and natural science disciplines and the issues that surround them.



Curricula

The College offers the Bachelor of Science degree (B.S.) in these areas of specialization:

- Animal Science: Livestock Production
- Animal Science: Pre-Veterinary
- Aquaculture
- Tropical Horticulture
- Tropical Plant Science and Agroecology

Full descriptions of the specialties are linked below. Please be aware that in order to provide students a well-balanced education, a good portion of a typical curriculum consists of College of Arts and Sciences courses in addition to CAFNRM courses. Types of courses offered by CAFNRM are as follows:

- **Agriculture (AG):** Provides a broad preparation in the basic and applied sciences of modern agriculture.
- **Agribusiness (AGBU):** Provides a strong background in the business aspect of agriculture, including management, sales and distribution.
- **Agricultural Economics (AGEC):** Provides an understanding of economic theory and economic policy and efficient management with limited economic resources in the production of food and fiber.
- **Agricultural Engineering (AGEN):** Provides basic mechanical skills and engineering principles required for the student to be successful in modern agricultural enterprises.
- **Agronomy (AGRN):** Provides the theory and practice of field-crop (food, fiber and feed) production and soil management.
- **Animal Science (ANSC):** Provides a wide variety of courses that integrate genetics, health, housing, management, nutrition, physiology, reproduction and evaluation of livestock.
- **Aquaculture (AQUA):** Provides a broad understanding of the scientific basis, design and management of aquaculture systems and fisheries.
- **Entomology (ENTO):** Provides basic knowledge on insects and their habitats as well as how to control insect pests.
- **Forestry (FOR):** Provides the background for the development and management of forestry and agroforestry, ecology, conservation and product utilization
- **Horticulture (HORT):** Provides an extensive base of horticultural practices such as grafting and pruning, the cultivation of fresh produce (fruits and vegetables), herbal, and ornamental crops that are of economic interest in the tropics and subtropics, as well as advanced techniques such as hydroponics, plant tissue culture, and hormonal manipulation of plants.
- **Natural Resources (NRES):** Provides a multi-disciplinary systems approach to understanding and managing the environmental resources of island ecosystems, and their relevance to coastal zones in general.
- **Plant Pathology (PPTH):** Provides the understanding and management of plant disease, the mechanisms by which pathogens produce disease, and the interactions between pathogens and host.
- **Plant Physiology (PPHY):** Provides the understanding of plant growth and development.
- **Soil Science (SOIL):** Provides the background for the properties of soil and soil management, with an emphasis on the role soils play in environmental studies as well as agriculture.

In order to earn a Bachelor of Science degree in Agriculture, students must not only fulfill the requirements for the major but also meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#).) Students wishing to make

timely progress toward graduation are urged to pay careful attention to all degree requirements. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. See *CAFNRM Courses* below for course information.

To assist students in planning their schedules, the College posts curriculum sheets on its [website](#). In addition to using these guides, **students are strongly encouraged to meet with their advisor each semester before registering.**

- [Agriculture: Animal Science—Livestock Production Specialty](#)
- [Energy Science Certificate](#)
- [Unmanned Aircraft Systems Certificate](#)
- [Agriculture: Animal Science—Pre-Veterinary Specialty](#)
- [Agriculture: Aquaculture Specialty](#)
- [Agriculture: Tropical Horticulture Specialty](#)
- [Agriculture: Tropical Plant Science and Agroecology Specialty](#)
- [Agriculture Minor](#)
- [Beekeeping Certificate](#)
- [Forest Resource Management and Conservation Certificate](#)
- [Plant Tissue Culture Certificate](#)
- [Tropical Farming Certificate](#)
- [Special CAFNRM Programs](#)
- [CAFNRM Courses](#)

Agriculture: Animal Science—Livestock Production Specialty

Contact:

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- Christopher Lu, chrislu@hawaii.edu

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

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Website: hilo.hawaii.edu/academics/cafnrm

This track of study provides students with a variety of animal science courses as well as important courses in agriculture so that they will be better qualified for the job market. The purpose of this program is to prepare students to work with livestock on farms and ranches or to obtain positions in the livestock industry or related fields.

Former students have taken positions at livestock farms, dairies, ranches, equestrian centers, experiment stations, quarantine stations, veterinary clinics, and zoos. Employment opportunities also exist with government agencies and with livestock and feed companies.

Student Learning Outcomes

1. Students will achieve a working knowledge of biology, chemistry, and mathematics as a foundation for further studies.
2. Students will achieve a basic understanding in the different animal science disciplines and be able to apply this knowledge to effectively manage and care for livestock.
3. Students will have experiential learning opportunities with farm animals through routine hands-on laboratories held at the UH Hilo Agricultural Farm Laboratory. When available, field trips to local farms and ranches will also provide learning opportunities with farm animals. Students will gain hands-on experience with livestock to help enhance their competitiveness in future studies and careers.
4. Students will use and refine their communication skills in various



classes.

- Students will develop and apply their computer skills to agricultural examples.

Curricula

- B.S. in Agriculture: Animal Science, Livestock Production Specialty Requirements

B.S. in Agriculture: Animal Science, Livestock Production Specialty Requirements

Group 1: General Education Basic, Area, and Integrative Requirements.

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (73-75 credits)

1. Agriscience Requirements (52)

- AG 230 Sustainable Agriculture (3)
- AG 496 Senior Seminar in Agriculture (1)
- AGBU 110 Microcomputing for Ag (3)
- AGBU 320 Agribus Management (3) **or** AGECE 330 Farm Management (3)
- AGEN 231 Intro To Ag Mech (3)
- AGRN 310 Agronom Crop Prod Tropics (3) **or** AGRN 410 Soil-Plant Herbivore Interactn (3)
- ANSC 141 Intro To An Science (3)
- ANSC 254 Fundamentals of Nutrition (3)
- ANSC 321 Applied Animal Nutrition (3)
- ANSC 350 Anatomy/Physiol Of Farm Animal (3)
- ANSC 445 An Breeding/Genetics (3)
- ANSC 450 Physiology Reproduction (3)
- Choose **three courses** from the following ANSC courses:
 - ANSC 342 Beef Cattle Production (3)
 - ANSC 351 Swine Production (3)
 - ANSC 353 Horse Production (3)
 - ANSC 355 Goat & Sheep Production (3)
- ENTO 304 General Entomology (3)
- HORT 262 Princ Of Hort (3)
- SOIL 304 Tropical Soils (3)

2. Supplemental Requirements (21-23)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- Chemistry (Choose **one sequence** from the following three

sequences):

- *Sequence 1:* CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- *Sequence 2:* CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- *Sequence 3:* CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- ENG 225 Writing for Sci & Technology (3)
- MATH (Choose **one** course from the following courses):
 - MATH 135 Precalc: Elementary Functions (3)
 - MATH 140 Precalc:Trig/Analytic Geometry (3)
 - MATH 140X Precalculus (4)
 - MATH 205 Calculus I (4)
 - MATH 206 Calculus II (4)

Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student.

See your advisor for possible electives.

Total Semester Hours Required for the B.S. in Agriculture: Animal Science—Livestock Production

123 credits required.

Agriculture: Animal Science— Pre-Veterinary Specialty

Contact:

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To be accepted into a professional school (veterinary medicine) or a graduate program (M.S. or Ph.D.) requires excellent grades and the proper academic background. To help provide the proper academic background for students interested in veterinary medicine and/or graduate studies in animal science, the Pre-Veterinary Track was developed. With this track of study, students can also qualify for professional schools of medicine and pharmacy with a few additional courses taken as electives.

The Pre-Veterinary Track has been successful with former students being accepted into Colleges of Veterinary Medicine in Alabama, California, Colorado, Iowa, Kansas, Minnesota, Mississippi, North Carolina, Ohio, Oklahoma, Oregon, Utah, Virginia, Washington, England, New Zealand and West Indies.

Student Learning Outcomes

- Students will achieve a working knowledge of biology, chemistry, and mathematics as a foundation for further studies.



- Students will achieve a basic understanding in the different animal science disciplines and be able to apply this knowledge to effectively manage and care for livestock.
- Students will have experiential learning opportunities with farm animals through routine hands-on laboratories held at the UH Hilo Agricultural Farm Laboratory. When available, field trips to local farms and ranches will also provide learning opportunities with farm animals. Students will gain hands-on experience with livestock to help enhance their competitiveness in future studies and careers.
- Students will use and refine their communication skills in various classes.
- Students will develop and apply their computer skills to agricultural examples.

Curricula

- B.S. in Agriculture: Animal Science, Pre-Veterinary Specialty Requirements

B.S. in Agriculture: Animal Science, Pre-Veterinary Specialty Requirements

Group 1: General Education Basic, Area, and Integrative Requirements.

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (85-86 credits)

- Agriscience Requirements (37)**
 - AG 230 Sustainable Agriculture (3)
 - AG 375 Intro To Genetic Analysis (3) **or** BIOL 376 Genetics (3)
 - AG 496 Senior Seminar in Agriculture (1)
 - AGBU 110 Microcomputing for Ag (3)
 - ANSC 141 Intro To An Science (3)
 - ANSC 254 Fundamentals of Nutrition (3)
 - ANSC 321 Applied Animal Nutrition (3)
 - ANSC 350 Anatomy/Physiol Of Farm Animal (3)
 - ANSC 445 An Breeding/Genetics (3)
 - ANSC 450 Physiology Reproduction (3)
 - Choose **three courses** from the following ANSC courses:
 - ANSC 342 Beef Cattle Production (3)
 - ANSC 351 Swine Production (3)
 - ANSC 353 Horse Production (3)
 - ANSC 355 Goat & Sheep Production (3)
- Supplemental Requirements (48-49)**
 - BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
 - BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
 - BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)

- BIOL 280 Biostatistics (3)
- BIOL 410 Biochemistry (3)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- ENG 225 Writng for Sci & Technology (3)
- MATH (Choose **one course** from the following courses):
 - MATH 135 Precalc: Elementary Functions (3)
 - MATH 140 Precalc:Trig/Analytic Geometry (3)
 - MATH 140X Precalculus (4)
 - MATH 205 Calculus I (4)
 - MATH 206 Calculus II (4)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1)

Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student.

See your advisor for possible electives to help you qualify for pharmacy and medical programs.

Total Semester Hours Required for the B.S. in Agriculture: Animal Science—Pre-Veterinary Specialty

123 credits required.

Agriculture: Aquaculture Specialty

Contact: Maria Haws

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College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

Tel: (808) 932-7691

Website: hilo.hawaii.edu/academics/cafnrm

The Aquaculture program is designed to provide students with a broad understanding of the scientific basis, 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 this field of study. Approximately 40% of the required courses are in aquaculture and agriculture with the other 60% in natural sciences and humanities.

The program produces educated aquaculturists needed by the growing aquaculture industry in Hawaii and throughout the world. Aquaculture graduates from UH Hilo have the training to obtain employment immediately after graduation with private firms and various government agencies as aquaculture biologists/technicians. 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 can also 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, warm



seawater, and cold seawater (from deep wells) 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 complemented by a 12-acre coastal site at Keaukaha, adjacent to the port of Hilo. Facilities include a water quality laboratory, a shellfish hatchery, a marine fish hatchery, demonstration fish culture units, and a marine mammal rehabilitation facility. Freshwater and marine aquaponics demonstration units are also present at each facility. Opportunities for student employment, internships and senior thesis/research projects are available on a variety of projects conducted by the [Pacific Aquaculture and Coastal Resources Center \(PACRC\)](#), a part of CAFNRM.

Student Learning Outcomes

1. Students will have a thorough understanding of, and be able to describe the worldwide extent and importance of aquaculture in the production of food, chemicals, recreation and environmental mitigation.
2. Students will become familiar with, and be able to compare and contrast the major types and components of aquaculture systems, species and factors affecting system sustainability.
3. Students will be able to identify global cultural, social, economic and historical factors that affect aquaculture development with an emphasis on the Hawai'i and Pan-Pacific region and be able to describe specifically how these factors affect aquaculture.
4. Students will be able to explain the relationship between aquaculture, society and the natural environments for the major aquaculture areas around the world, including potential impacts (positive and negative), and how environmental and social challenges can be solved. Emphasis will be placed on Hawai'i and the Pan-Pacific region, although regions such as Latin America and SE Asia will also be covered.
5. Students will have experiential learning opportunities (e.g. hands-on experiences at laboratories, farms, demonstration centers) to acquire skills and abilities including hatchery, growout, harvesting and marketing of aquaculture species to enhance their competitiveness in their future careers.

Curricula

- [B.S. in Agriculture: Aquaculture Specialty Requirements](#)

B.S. in Agriculture: Aquaculture Specialty Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (83-85 credits)

1. Agriscience Requirements

- AG 200 Agro-Environmental Science Com (3)
- AG 291 Directed Work Experience Pgm (3)
- AG 496 Senior Seminar in Agriculture (1)
- AGBU 320 Agribus Management (3) **or** AGECE 330 Farm Management (3)
- AGEN 400 Aquaculture Engineering (4)
- ANSC 141 Intro To An Science (3)
- ANSC 254 Fundamentals of Nutrition (3)
- AQUA 262 Intro Aquaculture (3)
- AQUA 352-352L Aquaculture of Fishes (3), Aquaculture of Fishes Lab (1)
- AQUA 353-353L Invertebrate & Algae Culture (3), Cultures of Invertebrates Lab (1)
- AQUA 425-425L Water Qual & Aquatic Product (3), Water Qual & Aquatic Prod Lab (1) **or** NRES 425 Marine Biogeochemistry (3)
- AQUA 466 Fisheries Science (3)
- HORT 262 Princ Of Hort (3)
- HORT 263 Hydroponics (3)
- Choose **one course** from the following three courses: (3)
 - AG 375 Intro To Genetic Analysis (3)
 - ANSC 445 An Breeding/Genetics (3)
 - BIOL 376 Genetics (3)

2. Supplemental Requirements

- *Chemistry* (Choose **one sequence** of the following three sequences):
 - *Sequence 1:* CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
 - *Sequence 2:* CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
 - *Sequence 3:* CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1)
- MARE 172 Marine Biology-Cellular Proc (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1)
- Choose **two course pairs** from the following three course pairs (8)
 - MARE 371-371L Biology Of Marine Invertebrate (3), Bio Of Marine Invertebrate Lab (1)
 - MARE 372-372L Biology Of Marine Plants (3), Biology of Marine Plants Lab (1)
 - MARE 484-484L Biology Of Fishes (3), Biology Of Fishes Laboratory (1)
- Choose **one course** from the following two courses: (3)
 - BIOL 281 General Ecology (3)
 - MARE 265 Marine Ecology and Evolution (3)
- Choose **one course** from the following three courses: (3)
 - BIOL 280 Biostatistics (3)
 - MARE 250 Statistical Apps in Marine Sci (3)
 - MATH 121 Intro Stats & Prob (3)

Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student.



Total Semester Hours Required for the B.S. in Agriculture: Aquaculture Specialty

123 credits required.

Agriculture: Tropical Horticulture Specialty

Contact:

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- William Sakai, sakaiw@hawaii.edu
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The Tropical Horticulture curriculum is designed to provide students with 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. Required and elective horticulture courses cover a wide range of topics such as nursery management, floriculture, orchid culture, tropical landscaping, vegetable crop production, tropical fruit production, and many more. Elective courses 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.

Students are provided 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. Courses such as plant tissue culture, 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 representatives, plant quarantine inspectors, and agriculture technicians. Graduates are highly skilled in managing, producing, and marketing horticultural crops.

Student Learning Outcomes

1. Thorough familiarity with the principles of horticulture and sustainable production of fruit, vegetable, and ornamental crops in the tropics.
2. Identify and analyze the factors that affect crop production including the emerging body of knowledge in plant growth and development and the contribution of climatic, environmental, and edaphic factors.
3. Advanced skills in the actual growing and marketing of crops that illustrate economic viability and sustainability of agricultural practices.
4. Interact effectively with all stakeholders of agricultural development in the community and participate in outreach programs that demonstrate cultural sensitivity and integration of new agricultural technologies with indigenous knowledge.

Curricula

- [B.S. in Agriculture: Tropical Horticulture Specialty Requirements](#)

B.S. in Agriculture: Tropical Horticulture Specialty Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (87-89 credits)

1. Agriscience Requirements (70)

- AG 200 Agro-Environmental Science Com (3)
- AG 291 Directed Work Experience Pgm (3)
- AG 375 Intro To Genetic Analysis (3)
- AG 496 Senior Seminar in Agriculture (1)
- AGBU 110 Microcomputing for Ag (3)
- AGECE 201 Agri Economics (3) **or** ECON 130 Intro To Microeconomics (3)
- AGECE 330 Farm Management (3) **or** AGBU 320 Agribus Management (3)
- AGEN 231 Intro To Ag Mech (3)
- ANSC 141 Intro To An Science (3)
- ENTO 304 General Entomology (3)
- HORT 262 Princ Of Hort (3)
- HORT 264 Plant Propagation (3)
- HORT 481 Weed Science (3)
- PPTH 301 Trop Plant Pathology (3)
- PPHY 310 Plant Growth/Develop (3)
- SOIL 304 Tropical Soils (3)
- Choose **six courses** totaling **18-21 credits** from the following Tropical Horticulture production courses:
 - HORT 263 Hydroponics (3)
 - HORT 266 Nursery Management (4)
 - HORT 303 Intro Plant Tissue Culture (3)
 - HORT 304 Plant Tissue Culture Acclimatiz (3)
 - HORT 350 Trop Landscape Horticulture (3)
 - HORT 351 Veg Crop Production (3)
 - HORT 352 Trop Fruit Production (3)
 - HORT 354 Floriculture (4)
 - HORT 360 Orchidology (4)
 - HORT 450 Adv Plant Tissue Cult (3)
- Choose other Agricultural courses totaling **3-6 credits** depending on total credit hours taken in Tropical Horticulture production courses.

2. Supplemental Requirements (17-19)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)



- Chemistry (Choose **one sequence** of the following three sequences):
 - *Sequence 1:* CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
 - *Sequence 2:* CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
 - *Sequence 3:* CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- ENG 225 Writing for Sci & Technology (3)
- One MATH Course numbered 121, 125, 135 or higher (3-4)

Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student

Total Semester Hours Required for the B.S. in Agriculture: Tropical Horticulture Specialty

123 credits required.

Agriculture: Tropical Plant Science and Agroecology Specialty

Contact: Kevin Hopkins

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College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

Tel: (808) 932-7691

Website: hilo.hawaii.edu/academics/cafnrm

The undergraduate Tropical Plant Science & Agroecology (TPSA) specialization is designed to provide an opportunity for students interested in tropical crop science or a plant-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 emphasizing the long-term sustainability of our managed crop production systems and the surrounding ecosystems. The TPSA student learns to manage a wide variety of plant production challenges. Since production constraints in the tropics come from many sources, this curriculum draws its core courses from the areas of Plant Physiology, Plant Pathology, Horticulture, Soil Science, Weed Science, Entomology, Agribusiness, and Agricultural Economics.

Graduates in TPSA can obtain employment with private enterprises or government agencies concerned with conservation and environmental protection, crop production, plant pest control, plant ecology, laboratories specializing in plant and soil analyses, and farm services/agribusiness. Other graduates may elect to start their own enterprises or proceed to graduate school for advanced degrees.

Student Learning Outcomes

1. Explain the principles, concepts, applications, and inter-relations of biology, chemistry, soil science, and mathematics as they apply to natural and agrarian "crop-based" plant ecosystems,
2. Use the principles of scientific inquiry to describe, analyze, solve, and report on scientific problems involving tropical plant science and related fields,
3. Exhibit proficiency in the use of technology, critical thinking, and quantitative tools used in plant-science applications,
4. Interact and communicate effectively with peers, mentors, and the larger community through internships, work-related activities, presentations and reports,
5. Exhibit proficiency and practical skills in various areas of crop production, and demonstrate awareness of the impact of agriculture on our environment and natural resources, and
6. Successfully pursue diverse careers or enter graduate programs in plant science, applied ecology and other related fields.

Curricula

- [B.S. in Agriculture: Tropical Plant Science and Agroecology Specialty Requirements](#)

B.S. in Agriculture: Tropical Plant Science and Agroecology Specialty Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (84-86 credits)

1. Agriscience Requirements (70)

- AG 200 Agro-Environmental Science Com (3)
- AG 230 Sustainable Agriculture (3)
- AG 291 Directed Work Experience Pgm (3)
- AG 375 Intro To Genetic Analysis (3)
- AG 496 Senior Seminar in Agriculture (1)
- AGBU 110 Microcomputing for Ag (3)
- AGBU 320 Agribus Management (3) **or** AGECE 330 Farm Management (3)
- AGECE 201 Agri Economics (3) **or** ECON 130 Intro To Microeconomics (3)
- AGEN 231 Intro To Ag Mech (3)
- ANSC 141 Intro To An Science (3)
- ENTO 304 General Entomology (3)
- HORT 262 Princ Of Hort (3)
- HORT 264 Plant Propagation (3)
- HORT 481 Weed Science (3)
- PPHY 310 Plant Growth/Develop (3)
- PPTH 301 Trop Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- Select 7 Other Agriculture Courses: At least 12 credits must be 300- or 400-level (Upper Division). Total of 21 credits

2. Supplemental Requirements (14-16)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)



- Chemistry (Choose **one sequence** of the following three sequences) (7-8):
 - **Sequence 1:** CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
 - **Sequence 2:** CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
 - **Sequence 3:** CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) **and** CHEM 141 Surv Organ Chem & Biochem (3)
- One MATH Course numbered 121, 125, 135 or higher (3-4)

Group 3. Electives, To be determined

Elective hours will vary depending upon which GE courses are selected by the student.

Total Semester Hours Required for the B.S. in Agriculture: Tropical Plant Science and Agroecology Specialty

123 credits required.

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, Forestry and Natural Resource Management.

Requirements (15-16 credits):

1. **Three of the following (9):**
 - HORT 262 Princ Of Hort (3)
 - ANSC 141 Intro To An Science (3)
 - AQUA 262 Intro Aquaculture (3)
 - AGEN 231 Intro To Ag Mech (3)
 - SOIL 304 Tropical Soils (3)
2. **One of the following (3-4):**
 - ANSC 342 Beef Cattle Production (3)
 - ANSC 351 Swine Production (3)
 - ANSC 353 Horse Production (3)
 - ANSC 355 Goat & Sheep Production (3)
 - HORT 266 Nursery Management (4)
 - HORT 350 Trop Landscape Horticulture (3)
 - HORT 351 Veg Crop Production (3)
 - HORT 352 Trop Fruit Production (3)
 - HORT 354 Floriculture (4)
 - AGRN 310 Agronom Crop Prod Tropics (3)
 - AGBU 320 Agribus Management (3)
3. **Agriculture elective (3)**
 - Any 200-, 300-, or 400-level course.

Beekeeping Certificate

Contact: Lorna Tsutsumi
Email: tsutsumi@hawaii.edu

UH Hilo has been recognized by the media, public, and state Senate for its efforts to bring greater awareness to the honey bee, an important and vital pollinator of many crops. The Beekeeping Certificate helps to

recognize the level of achievement in beekeeping gained by UH Hilo students and will assist them in future career positions. Courses have hands-on laboratories and are taught primarily at the UH Hilo farm in Pana'ewa, Hawai'i.

Requirements (18 credits):

- HORT 262 Princ Of Hort (3)
- AG 205 Value Added Ag Products (3)
- AG 230 Sustainable Agriculture (3)
- ENTO 262 Intro Beekeeping (3)
- ENTO 350 Advanced Beekeeping (3) (to be repeated once)

Energy Science Certificate

Note: The certificate in Energy Science is undergoing review. Students are advised to consult with a CAFNRM advisor before pursuing this program of study.

Program Contact: Philippe M. Binder, Ph.D.
Email: pbinder@hawaii.edu

Program Description

The conversion of energy to useful forms for humans, its distribution and its impact are among the most pressing issues of our time. They are at the same level as climate change, population growth and social justice. The Certificate in Energy Science provides students with extensive, integrated knowledge about this field - enough to access entry-level jobs. The courses take advantage of the Island of Hawai'i's privileged opportunities in solar, wind, biofuel, tide and geothermal energies, with field trips planned according to the course subject matter. For our operations we have counted on, and hope to continue counting on the support of government and private organizations.

The Management and Policy Concentration places an emphasis on policy, yet it requires at least two courses with significant technical content. It is intended for students majoring in humanities, social sciences, business and similar fields. It can lead to potential careers in energy policy or management.

The Technical Concentration is a rigorous program consisting of year-long surveys of energy science and biofuels as well as a laboratory course. This track will prepare students for graduate work in the energy field. It is intended for students in the natural sciences or CAFNRM. It will lead to potential careers in technical areas.

Program Learning Outcomes

The Energy Science Certificate Program strives to:

1. Provide an opportunity for undergraduate students in any discipline to explore energy-related issues during their residency at UH Hilo
2. Add focus and relevance to the academic energy science courses by aiding the students in acquiring a practical "energy skill";
3. Help each certificate student, through counseling, discover and implement his/her individual energy-oriented educational career goals;
4. Provide courses designed to acquaint the undergraduate student with the many facets of energy science; and
5. Provide opportunities and guidance to students who wish to contribute their talents by working toward solutions of social, policy and technical energy-related problems.



Student Learning Outcomes

Upon completing the Energy Science Certificate, students will be able to:

1. Address energy-related issues (systems or problems) by collecting relevant data
2. Analyze such issues from a variety of technical, management and/or policy perspectives
3. Present the results of such an analysis in oral or written form in a way that takes into account the issues' broader context
4. Propose actions that lead to an improvement or solution of the energy-related issues being addressed.

Curriculum

Management and Policy Concentration (15 Credits)

• Required Courses

- ENGR 200 Introduction to Energy Science (3)
- ENGR 240 Conventional Energies (3) or ENGR 250 Alternative Energies (3)
- ENGR 310 Energy Policy Analysis (3)
- ENGR 340 Sustainable Biofuels (3)
- At least 3 additional credits of Energy Science Electives from the below:
 - AGEC 201 Agri Economics (3)
 - GEOG 326 Natural Resources (3)
 - PHYS 341 Thermodynamics (3)
 - POLS 335 Envir Politics & Policy (3)
 - Any ENGR Course numbered 200 or higher

Technical Concentration (31-33 Credits)

• Pre-Core Courses (16-18 Credits)

- MATH 140X Precalculus (4) **OR** MATH 205 Calculus I (4) or placement
- PHYS 151-152 College Physics I (3), College Physics II (3) (Formerly offered as PHYS 106-107) **OR** PHYS 170-171 Gen Phys I: Mechanics (4), Gen Phys II: Elec & Magnetism (4)
- BIOL 101 General Biology (3) **OR** BIOL 125 Intro Cell & Molecular Biol (3) **OR** BIOL 171 Introductory Biology I (3) *(Formerly offered as BIOL 175)
- CHEM 161 General Chemistry I (3)

• Energy Science Core (15 Credits)

- ENGR 240 Conventional Energies (3)
- ENGR 250 Alternative Energies (3)
- ENGR 340 Sustainable Biofuels (3)
- ENGR 361 Energy Laboratory (3)
- ENGR 400 Biochemical Energy Conversion (3)

Note: All courses within the certificate program must be taken and passed with a grade of C or better.

Forest Resource Management and Conservation Certificate

Note: The Certificate of Forest Resource Management and Conservation is undergoing review. Students are advised to consult with a Agriculture advisor before pursuing this program of study.

Contact: Yiqing Li
Email: yiqing@hawaii.edu

The Certificate of Forest Resource Management and Conservation is a multi-disciplinary program that emphasizes a theoretical and applied approach to forest resource management, forest ecosystem restoration, and natural resource conservation. This certificate program prepares students for employment with organizations such as The Nature Conservancy (TNC), Natural Resource Conservation Service (NRCS), DLNR's Division of Forestry and Wildlife, and private consulting firms, and public organizations including the National Park Service and USDA Forest Service, and other similar organization involved in ecosystem management and ecological restoration. The certificate also is useful for advanced studies in the field.

Student Learning Outcomes

1. Demonstrate knowledge and understanding in the profession of Forestry, especially current applications of forestry principles and practices.
2. Describe and draw connections among natural, agricultural, and land-use processes influencing the tropical forest ecosystems.
3. Able to analyze watershed data utilizing GIS mapping techniques and able to develop and implement a forest conservation plan.
4. Familiar with typical best management practices (BMP's).
5. Assess, comprehend, and synthesize a broad range of scientific and social-economic information to professionally present policy recommendations and research directives for forest conservation issues.

Curriculum

Requirements (21 credits with prerequisite):

• Prerequisites (3):

- MATH 121 Intro Stats & Prob (3) **or** BIOL 280 Biostatistics (3)

• Required Courses (18):

- FOR 202 Forestry & Natural Resources (3) **or** NRES 196 Intro to Natural Resource Mgmt (3)
- NRES 430 GIS Application in Nat Res Mgt (3) **or** GEOG 480 Geog Info Sys & Visualization (3)
- NRES 410 Invasive Species & Ecosystems (3) **or** BIOL 381 Conservation Biology (3)
- FOR 440 Forest Ecosyst Restoration/Mgt (3)
- NRES 420 Hydrology and Watershed Mgmt (3)
- SOIL 304 Tropical Soils (3)

Plant Tissue Culture Certificate

Note: The certificate in Plant Tissue Culture is undergoing review. Students are advised to consult with a CAFNRM advisor before pursuing this program of study.

Contact: Bruce Mathews
Email: bmathews@hawaii.edu

The Plant Tissue culture Certificate program is designed to prepare baccalaureate degree seeking students and non-degree seeking students for employment in the plant tissue culture industry. It focuses on course work that relates directly to this industry and facilitates immediate employment as laboratory proprietors, laboratory supervisors, and laboratory technicians. The curriculum includes a range of plant science and tissue culture courses that provide a strong theoretical base. Additionally, the student must complete six credit hours of Advanced Plant Tissue Culture, primarily a hands-on, laboratory-oriented course. Students in the Plant Tissue Culture Certificate Program must complete the prescribed courses (18 credits) with a cumulative grade average of



2.0 or better.

Student Learning Outcomes

1. Will provide the student with theoretical information and practicum experience in plant tissue culture.
2. Special emphasis will be placed on setting-up and operating a plant tissue culture laboratory.
3. Focuses on course work that prepares the student for immediate employment in the plant tissue culture industry.
4. Psychomotor skills will be emphasized as it relates to in vitro plantlet manipulation.
5. Diagnostic skills will be introduced as tools for determining the source(s) of in vitro plantlet problems. Discussions pertaining to solving these problems will be an active part of this program.
6. Scientific verbal and writing skills appropriate for the field of plant tissue culture will be introduced and honed.
7. Concentration calculations appropriate for this field will be introduced as an integral part of this program.

Curriculum

Requirements (18 credits):

- HORT 262 Princ Of Hort (3)
- HORT 264 Plant Propagation (3)
- HORT 303 Intro Plant Tissue Culture (3)
- HORT 304 Plant Tissue Culture Acclimatiz (3)
- HORT 450 Adv Plant Tissue Cult (3) (To be taken twice for a total of 6 credits)

Special CAFNRM Programs

In addition to its academic core of course offerings, the [College of Agriculture, Forestry & Natural Resource Management \(CAFNRM\)](#) has programs offering 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: CAFNRM's Agriculture Development Program allows individuals the opportunity to achieve a Bachelor of Science degree in Agriculture, even though they lack the proper preparation for standard admission (*i.e.*, low placement scores on SAT, low GPA standing, lack of college prep courses, etc.). Students accepted into this program are University of Hawai'i at Hilo CAFNRM students and are obligated to complete all academic requirements. These students are given a chance to take advantage of a comprehensive set of support courses and assistance to enhance their successes.

Information on how to apply to this program is available from the [College of Agriculture, Forestry & Natural Resource Management \(CAFNRM\)](#) office at (808) 932-7691 or [Admissions](#) at (808) 932-7446.

Tropical Farming Certificate

Contact: Bruce Mathews
Email: bmathews@hawaii.edu

The Tropical Farming Certificate provides a pathway to a career in agriculture and a potential link to further educational opportunities. In addition to the standard offering of classes at the UH Hilo main campus, courses will be periodically taught at off-campus agricultural facilities of the University of Hawaii System and other cooperators when funding is available from educational and rural development grants and other sources.

Student Learning Outcomes

1. Demonstrate competence with both laboratory and field-based techniques used in modern tropical agricultural production systems.
2. Understand how global issues including climate change, energy use, chemical use, water availability and food safety impact sustainability of agricultural systems.
3. Apply principles of business, marketing and management to an agricultural enterprise in developing the various components of a business plan.
4. Describe and assess the influence of plant and (or) animal production systems and their management on environmental sustainability and restoration.
5. Demonstrate an appreciation and an ability to communicate the diverse impacts of agriculture on humankind.

Curriculum

Requirements (21 credits):

- AG 205 Value Added Ag Products (3) **or** FDSC 201 Man's Food (3)
- AG 215 Agro-Environmental Chemistry (3)
- AG 230 Sustainable Agriculture (3)
- AG 290 Stud Mgt Farm Enterp Prj (1-3) **or** AG 291 Directed Work Experience Pgm (3)
- AGECE 330 Farm Management (3)
- AGEN 301 Farm Power (3)
- HORT 262 Princ Of Hort (3)

Unmanned Aircraft Systems Certificate

Contact: CAFNRM Office
Phone: (808) 932-7341
Email: awc8@hawaii.edu
Program Website: <https://hilo.hawaii.edu/depts/aeronautics/>

This Certificate in Unmanned Aircraft Systems (UAS) is offered to all who meet the enrollment requirements for UH Hilo. Students will gain a broad understanding of unmanned aircraft types and purposes, their peripheral systems, preflight planning, and the legal guidance for operating them in a non-hobby capacity in the National Aerospace System of the United States of America. Graduates of the UAS certificate program will possess a skillset valuable in the unmanned aerial data collection field.

Certificate Requirements (21 Credits):

- AERS 152 Introduction to UAS (3)
- AERS 354 UAS Robotics (3)
- GEOG 201 Interp Geog Data (3)
- AERS 352 UAS Mission Plans & Simulation (3)
- AERS 452 UAS Flight (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)



College of Arts and Sciences (CAS)

Michael Bitter, PhD

Interim Dean, College of Arts and Sciences

Office of the Dean

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Purpose

The purpose of the [College of Arts and Sciences \(CAS\)](#) 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 Hawaii.

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.

Student Learning Outcome

Students in the College of Arts and Sciences 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.

Majors and Certificates

- [Administration of Justice](#)
- [Anthropology](#)
- [Art](#)
- [Astronomy](#)
- [Biology](#)
- [Chemistry](#)
- [Communication](#)
- [Computer Science](#)
- [Education- School of Education](#)
- [English](#)
- [Environmental Science](#)
- [Gender and Women's Studies](#)
- [Geography](#)
- [Geology](#)
- [Global Engagement Certificate](#)
- [History](#)
- [Japanese Studies](#)
- [Kinesiology and Exercise Sciences](#)
- [Languages](#)
- [Liberal Studies](#)
- [Marine Option Program Certificate](#)
- [Marine Science](#)
- [Mathematics](#)
- [Natural Science](#)
- [Nursing - School of Nursing](#)
- [Pacific Islands Studies Certificate](#)
- [Performing Arts](#)
- [Philosophy](#)
- [Physics](#)
- [Planning Certificate](#)
- [Political Science](#)
- [Pre-Law Certificate](#)



- Psychology
- Sociology
- STEM Research Honors Certificate
- Teaching English to Speakers of Other Languages (TESOL) Certificate
- UH Hilo Pre-Pharmacy

Administration of Justice

Program Chair: Katherine Young, Ph.D.

Email: youngkat@hawaii.edu

Social Sciences Division Office:

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Website: hilo.hawaii.edu/depts/justice/

Administration of Justice covers all aspects of the process from crime detection through criminal appeals, using case law, statutes, public administration, philosophy, psychology, and other academic fields as the basis of study. It not only covers the process, but the agencies involved in the process as well, including law enforcement, prosecution, defense, courts, and corrections.

Students may double-major, fulfilling major requirements for fields such as Psychology, Sociology, or Political Science, as well as those for Administration of Justice.

Those students entering the program with an A.A. degree from a community college accredited by a U.S. regional accreditation agency will not be required to take General Education courses and will be given elective credit for selected courses in Administration of Justice that are transferred.

Mission

The mission of the Administration of Justice major is to prepare students for entry into professions associated with the administration of justice, including, but not limited to, law enforcement, courts, corrections, probation, and parole. This multidisciplinary program is also designed to qualify those already in these professions for promotion to supervisory positions. Baccalaureate degrees are frequently required for entrance into federal agencies and are strongly recommended for promotion in state and local agencies.

Program Learning Outcomes

1. This program is designed to supplement, not duplicate, police academy or equivalent training and related training at the baccalaureate level focused in the areas of law, social services, and conceptual and/or applied interactions between law and social services.
2. By preparing students for mid-level and higher positions in agencies associated with the administration of justice, the program seeks to expand conventional understandings related to the administration of justice from social science-based perspectives.
3. As such, the program is multidisciplinary, with core courses designed to provide a practical and a theoretical background to the field.
4. With a variety of electives that may be tailored to a student's specific interests and career goals, this program fosters flexibility in order to allow students to complete a complementary double major or certificate program that will broaden their knowledge of the administration of justice at the undergraduate level.

5. This program is intended to prepare students for future study and/or training at the graduate and/or professional level in areas related to the administration of justice.

Goals for Student Learning in the Major

All graduates who have majored in Administration of Justice should:

1. Be able to brief appellate court cases
2. Be familiar with leading U.S. Supreme Court cases on criminal procedure.
3. Be proficient in writing.
4. Have a basic understanding of professional ethics.
5. Understand the leading theories of crime causation.
6. Understand basic principles of public administration.
7. Be able to develop a research design.
8. Be familiar with all phases of the criminal process.
9. Understand where the criminal justice process fits in the American system of government.
10. Understand the relationship between law enforcement, prosecution, defense, the judicial system, and the corrections system.

Internships

Internships in county, state, and federal agencies may be available to majors in Administration of Justice. Students earn course credit for their internship experience while learning and participating in their intended career field.

Curricula

- [B.A. in Administration of Justice Requirements](#)
- [Administration of Justice \(AJ\) Courses](#)

B.A. in Administration of Justice Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (39 credits)

1. AJ 101 Intro to Admin of Justice (3)
2. POLS 220 Intro to Law and Legality (3)
3. PHIL 325 Philosophy Of Law (3) **or** POLS/GEOG 325 Legal Geography (3) **or** POLS/WS 327 Law and Identity (3)
4. POLS 322 Criminal Justice (3) **or** POLS 321 Constitutional Law (3)
5. POLS/SOC 324 Criminology (3)
6. POLS 360 Public Administration (3)



7. WS 151 Intro Gender & Women's Studies (3)
8. **18 credits** from the following three-credit courses (Internship credit and Senior Thesis Credit may be used with permission of your advisor:
 - Any one **AJ** or SUBS course (to be taken at community college)
 - AJ 391 Internship (3-12)
 - ANTH 485 Applied Anthropology (3)
 - COM 442 Communication & Conflict (3)
 - GEOG 328 Cultural Geography (3)
 - GEOG 340 Intro to Land Use Planning (3)
 - GEOG 430 Gender, Place and Environment (3)
 - HIST 284 History of Hawaii (3)
 - HIST 333 Twentieth Century Hawaii (3)
 - HIST 383 United States: 1930 - 1980 (3)
 - KES 320 Drug Awareness (3)
 - PHIL 220 Social Ethics (3)
 - PHIL 315 Ethical Theory (3)
 - PHIL 320 Social & Political Phil (3)
 - PHIL 323 Professional Ethics (3)
 - PHIL/WS 393 Normality, Abnormality & Soc (3)
 - POLS 320 Mock Trial (3)
 - POLS/SOC 326 Juvenile Delinquency (3)
 - POLS 331 Presidency And Congress (3)
 - POLS/WS 332 Politics Of Race & Gender (3)
 - POLS 334 Pol Bvr, Campaigns & Elections (3)
 - POLS 335 Envir Politics & Policy (3)
 - POLS 342 International Law (3)
 - POLS 346 International Organizations (3)
 - POLS 433 Politics, Media & Public Opin (3)
 - PSY 321 Psy Of Personality (3)
 - PSY 322 Social Psychology (3)
 - PSY 323 Community Psychology (3)
 - PSY 324 Abnormal Psychology (3)
 - PSY 360 Cross-Cultural Psy (3)
 - PSY 377 Counseling Psychology (3)
 - PSY 390 Industrial & Organizationl Psy (3)
 - SOC 301 Intro Social Work (3)
 - SOC 310 Race & Ethnic Relations (3)
 - SOC 320 Social Stratification (3)
 - SOC 325 Sociology Of Disaster (3)
 - SOC 340 Socialization & Identity (3)
 - SOC 345 Human Populations (3)
 - SOC 357 Intro to Family Therapy (3)
 - SOC 365 Sociology of Deviance (3)
 - SOC 370 Political Economy of Hawai'i (3)
 - PSY 323 Community Psychology (3)
 - PSY 324 Abnormal Psychology (3)
 - PSY 360 Cross-Cultural Psy (3)
 - SOC 310 Race & Ethnic Relations (3)
 - SUBS 245 Group Counseling (*to be taken at community college*)
 - SUBS 268 Survey of Substance Abuse Problems (*to be taken at community college*)
 - SUBS 270 Core Functions of Substance Abuse Counseling (*to be taken at community college*)
 - SUBS 294 Substance Abuse Practicum I (*to be taken at community college*)
 - SUBS 295 Substance Abuse Practicum II (*to be taken at community college*)

Total Semester Hours Required for the B.A. in Administration of Justice

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. To earn a Bachelor of Arts degree in Administration of Justice, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
3. At least 45 semester hours must be earned in courses at the 300- or 400-level.
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Anthropology

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- [Joseph Genz](#), Ph.D.

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- [Lynne Wolforth](#), Ph.D.

Anthropology is the holistic study of human cultures and the human place in nature. The discipline emphasizes comparing human groups to understand the range of variation in human behavior and biology, and therefore considers what it is to be human.

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 Hawai'i Island.

The international nature of anthropology makes this field of study increasingly important in our shrinking world. People in all fields of business, politics, medicine, ecology, and academia now work daily with people from other cultures. The success of their enterprise often depends on their ability to understand and communicate with people whose cultures differ from their own.

Anthropology attempts to provide a general worldview, characterized by its holistic ideal: a belief that an understanding of human nature requires drawing together and relating information from all aspects of the human condition. The contribution of anthropology is in integrating concepts from many different disciplines into a meaningful understanding of that most complex animal, *Homo sapiens*.

Goals for Student Learning in the Major

The main goals for student learning in anthropology are to think and communicate more broadly and holistically by gaining a basic understanding and integrated perspectives of the following:

- the nature and range of cultural diversity worldwide and through time;
- how human cultural diversity derives from our cultural and biological adaptations;
- the anthropological enterprise from a four-field approach;
- human origins and present day biological variation;
- the importance of prehistory and the archeological record;
- the role of language in culture, cultural transmission, and intercultural communication;
- cross-cultural health and illness and the application of anthropological skills and techniques towards resolving problems nationally and internationally;
- the major theoretical orientations in anthropology as they relate to our general understanding of human cultural behaviors and cultural and biological adaptations;
- the human experience that will enable graduates to become more effective at communicating cross-culturally and working in multicultural settings;
- anthropological ethics as they relate to human cultural interaction and research with humans.

We also strive to have our undergraduates gain basic skills in one or more of the field and laboratory research methods used in anthropology, and to provide opportunities for hands-on research by working on special projects either independently or jointly with faculty.

Prospects for Anthropology Graduates

Graduates in anthropology are employed in a number of different occupations, spanning professional anthropology work, education, social services, government service, and business. The international approach and cross-cultural nature of the perspective gained in the anthropology major is of great benefit to our graduates who plan careers in social services, particularly in Hawai'i. People in business also have placed continually greater emphasis on cross-cultural communication skills, as business becomes increasingly international. In addition 21 private consulting firms are working in Hawaiian archaeology and various state and federal offices that regularly employ our graduates. Thus, many local and international jobs are available to anthropology graduates at the

bachelor's level.

Anthropology also serves as an excellent major for those students who intend to go on into professional programs such as law, medicine, nursing, public health, and business administration. UH Hilo anthropology graduates include lawyers, teachers, archaeologists, social workers, academic counselors, public health officials, registered nurses, and business professionals.

For graduates who wish to continue in a career in anthropology, graduate work is usually necessary for advancement into professional level positions. Graduates of the Anthropology Department at UH Hilo have been very successful at gaining admission into graduate programs, and these students are beginning to achieve degrees at the master's and doctoral level in anthropology, archaeology, and other social science and humanities disciplines.

Contributions to the UH Hilo General Education Program

ANTH 205 Cultural Anthropology (3) may be counted for three credits in the World Cultures requirement of General Education. Alternatively, it may be counted in the Social Sciences area requirement. The course uses examples from a variety of cultures worldwide and gives students the tools and concepts to understand and appreciate cultural differences. ANTH 210 Archaeology (3), ANTH 215 Human Evolution (3), ANTH 221 Intro to Language (3), ANTH 300 Cultures of Oceania (3), and ANTH 324 Culture, Sex And Gender (3) may also be counted for three credits in the Social Sciences area requirement of General Education.

Special Aspects of the Program

The Anthropology Department at UH Hilo currently operates a sizeable archaeology laboratory with facilities for cleaning, sorting, labeling, analyzing, and storing archaeological materials. The Department also has a large preparation room for archaeological fieldwork and operates an energy dispersive X-Ray fluorescence spectrometer to analyze the geochemical characteristics of lithics. Opportunities exist for trained students to participate in archaeological excavations both on Hawai'i Island and elsewhere. Student internships are available for students to work at the national parks, local museums, and with contract archaeology firms.

A physical anthropology laboratory in the department has facilities for studying human adaptability, osteology, and a variety of aspects of human physiology and variation. Trained students also may participate in biomedical anthropology. Ongoing National Institutes of Health-supported biomedical research is carried out in the human biology laboratory and in the community.

Anthropology students also have been involved in ethnographic research on Hawai'i Island. Studies of oral histories of Hawai'i Island communities, as well as the study of culture change on the island, are ongoing. Hawai'i also offers students a natural laboratory of anthropological linguistics, where scholars are studying pidgin and Creole languages and their relationship to an understanding of language in general.

The faculty in anthropology at UH Hilo are committed to undergraduate instruction. This commitment goes beyond the care and energy placed in coursework and extends to extensive work on the individual level with students who major in anthropology. Virtually all anthropology graduates have had at least one, and often several, directed reading/research courses, in which the student worked on an individual basis with a faculty member to explore a topic in anthropological research of mutual interest.



The program prides itself on being one of high standards, but also one where the sense of wonder, interest, and fun that brings people into anthropology has not been lost. People in the program make life-long friends who have shared the unique experience of learning about anthropology in a setting of unique importance for anthropology, the natural laboratory of Hawai'i.

Student Anthropology Club

The Anthropology Club at UH Hilo is one of the most active, and oldest, on campus. The club has sponsored parties, presentations, field trips, anthropological films, and other special events of interest to students. Club activities maintain the excitement of doing anthropology outside the classroom.

Curricula

- [B.A. in Anthropology Requirements](#)
- [Anthropology Minor](#)
- [Global Engagement Certificate](#)
- [Anthropology \(ANTH\) Courses](#)

B.A. in Anthropology Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (36 credits)

1. ANTH 150 Humankind Emerging (3)
2. **Introductory Courses (9 Credits), choose 3 of the below:**
 - ANTH 205 Cultural Anthropology (3)
 - ANTH 210 Archaeology (3)
 - ANTH 215 Human Evolution (3)
 - ANTH/LING 221 Intro to Language (3)
3. ANTH 492 Dynamic World of Anthropology (3)
4. **An additional 21 credits of Anthropology courses, of which 12 or more must be at the 300- or 400-level, including:**
 - ANTH 370 Hist of Anth Theory (3)
 - And **one or more** ANTH methods course from:
 - ANTH/AG 330 Peoples, Plants, and Culture (4)
 - ANTH 445 Ethnographic Field Tech (3)
 - ANTH 450 Physical Anth Lab (4)
 - ANTH 470 Museology (3)
 - ANTH 481 Archaeometry (3)
 - ANTH 482 Archaeological Research Meth (4-6)
 - ANTH 484 Stone Tool Analysis (3)
 - ANTH 485 Applied Anthropology (3)

Optional Track in Medical Anthropology

For students interested in obtaining the optional track in Medical Anthropology, the below requirements must be met.

1. **Medical Anthropology Track**
 - ANTH 415 Medical Anth (3)
 - ANTH 463 Global Health in Evol Perspect (3)
 - And **Two** of the following:
 - ANTH 375 Human Biological Variation (3)
 - ANTH 450 Physical Anth Lab (4)
 - ANTH 485 Applied Anthropology (3)

Total Semester Hours Required For The B.A. in Anthropology

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students may demonstrate proficiency at the 100-level in archaeology, physical anthropology, cultural anthropology, and linguistics in place of taking the required introductory anthropology course. Consult an advisor for other courses that allow students to demonstrate proficiency in these areas.
3. **With the approval of the advisor**, 6 semester hours of the required 21 additional hours of the major may be from other disciplines. Typically, this option is applied to transfer credits from anthropology-related programs (e.g. Indigenous Studies, Ethnic Studies). It is not applied typically to regularly-listed UH Hilo classes not already cross-listed.
4. To earn a Bachelor of Arts degree in Anthropology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. At least 45 semester hours must be earned in courses at the 300- or 400-level.
6. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
7. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
8. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Anthropology Minor

Requirements (21 credits):

1. ANTH 150 Humankind Emerging (3)
2. **2 courses from the below:(6 Credits)**
 - ANTH 210 Archaeology (3)
 - ANTH 205 Cultural Anthropology (3)
 - ANTH 215 Human Evolution (3)
 - ANTH/LING 221 Intro to Language (3)
3. **4 additional courses with at least two of the blocks represented:(12 Credits)**
 - *Block I:*
 - ANTH 200 Cult Of World: Regional Survey (3)
 - ANTH 310 Contemp Iss in Hawaiian Anth (3)



- ANTH 320 Cross-Cultural Study Of Women (3)
- ANTH 323 Cultural & Social Change (3)
- ANTH 324 Culture, Sex And Gender (3)
- ANTH 354 Filipino Culture (3)
- ANTH 356 Japan (3)
- ANTH 357 Change in The Pacific (3)
- ANTH 358 Japanese Immigrants (3)
- ANTH 370 Hist of Anth Theory (3)
- ANTH 372 Culture through Film (3)
- ANTH 386 Hawaiian Culture Before 1819 (3)
- ANTH 387 Modern Haw N Cult 1819-Present (3)
- ANTH 399 Directed Studies (To Be Arranged)
- ANTH 435 Senior Seminar Pacific Studies (3)
- ANTH 445 Ethnographic Field Tech (3)
- ANTH 447 Marine Anth:Fishers in Oceania (3)
- ANTH 485 Applied Anthropology (3)
- ANTH 495 Proseminar (3)
- ANTH 499V Directed Studies (To Be Arranged)
- *Block II:*
 - ANTH 315 Ecological Anthropology (3)
 - ANTH 384 Primatology (3)
 - ANTH 399 Directed Studies (To Be Arranged)
 - ANTH 415 Medical Anth (3)
 - ANTH 450 Physical Anth Lab (4)
 - ANTH 495 Proseminar (3)
 - ANTH 499 Directed Studies (To Be Arranged)
- *Block III:*
 - ANTH 321 Morphology And Syntax (3)
 - ANTH 331 Lang in Culture & Society (3)
 - ANTH 347 Pidgins And Creoles (3)
 - ANTH 399 Directed Studies (To Be Arranged)
 - ANTH 495 Proseminar (3)
 - ANTH 499 Directed Studies (To Be Arranged)
- *Block IV:*
 - ANTH 385 Haw N Pacific Prehistory (3)
 - ANTH 388 Historical Archaeology (3)
 - ANTH 389 Cultural Resource Management (3)
 - ANTH 399 Directed Studies (To Be Arranged)
 - ANTH 470 Museology (3)
 - ANTH 481 Archaeometry (3)
 - ANTH 482 Archaeological Research Meth (4-6)
 - ANTH 484 Stone Tool Analysis (3)
 - ANTH 490 Internship in Archaeology (3-6)
 - ANTH 495 Proseminar (3)
 - ANTH 499 Directed Studies (To Be Arranged)

A minimum GPA of 2.0 in minor courses is required.

Global Engagement Certificate

Program Contacts:

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1. Program Description

The Global Engagement Certificate provides an interdisciplinary approach to investigating, experiencing and learning about world cultures and global issues, particularly as they relate to the interaction of

individuals and groups from different cultures. Through a unique combination of coursework and co-curricular experiences, the certificate exposes students to diverse perspectives and develops competencies needed to thrive in today's dynamic interconnected and interdependent world.

In an age of new international tensions and shifting global alliances, the need to understand international affairs, to recognize cultural values other than one's own, and to view world events from a variety of perspectives has become increasingly critical. Globalization has catapulted people from different cultures into shared and contested physical and virtual spaces, resulting in new forms of misunderstanding and conflict -- as well as unparalleled potential for intercultural alliances. Learn about other ways of thinking and behaving by interacting with diverse cultures locally and abroad. Explore pressing issues of global concern, view these issues from different perspectives, and be leaders of positive social change.

The certificate consists of four required components:

1. [Academic coursework](#)
2. [Intercultural or international experience](#)
3. [Intercultural events and activities](#)
4. [Portfolio](#)

2. Academic Coursework

Required Core (20 credits):

- **Language (8):** Two courses in a single language other than English. This requirement may be waived for students whose first language is not English.
- ANTH 150 Humankind Emerging (3)
- **Electives:** 9 credits chosen from at least two different disciplines from the following:
 - AG 230 Sustainable Agriculture (3)
 - ANTH 320 Cross-Cultural Study Of Women (3)
 - ANTH 323 Cultural & Social Change (3)
 - ANTH 324 Culture, Sex And Gender (3)¹
 - ANTH 331 Lang in Culture & Society (3)¹
 - ANTH 372 Culture through Film (3)¹
 - ANTH 415 Medical Anth (3)¹
 - ANTH 445 Ethnographic Field Tech (3)¹
 - ANTH 485 Applied Anthropology (3)¹
 - COM 241 Health, Culture and Diversity (3)
 - COM 344 Sustainability, Com & Culture (3)
 - COM 351 Com in Multicultural Workplace (3)
 - COM 358 International Communication (3)
 - COM 359 Intercultural Communication (3)
 - COM 368 Communication & Social Change (3)
 - COM 442 Communication & Conflict (3)¹
 - COM 451 Communication and Ethnography (3)
 - COM 461 Race and Gender in Media (3)¹
 - ECON 360 International Trade & Welfare (3)¹
 - ECON 361 International Finance (3)¹
 - ENG 201 Global Cinema (3)¹
 - ENG 202 Literature of Human Rights (3)¹
 - ENG 204 Intr Race/Gender Film Studies (3)¹
 - ENG 257 Multicultural Literature (3)¹
 - GEOG 328 Cultural Geography (3)
 - GEOG 329 Development Geographies (3)
 - GEOG 331 Tourism Geographies (3)¹
 - HIST 151 World History to 1500 (3)
 - HIST 152 World History since 1500 (3)



- HIST 470 US in the World 1865-2003 (3) ¹
- HIST 485 Seminar in World History (3) ¹
- POLS 304 Liberalism and Globalism (3)
- POLS 327 Law and Identity (3)
- POLS 332 Politics Of Race & Gender (3)
- POLS 342 International Law (3) ¹
- POLS 345 Model United Nations (3)
- POLS 346 International Organizations (3)
- POLS 355 Internatl Political Economy (3) ¹
- PSY 360 Cross-Cultural Psy (3) ¹
- PSY 460 Psychology of Culture & Health (3) ¹
- SOC 300 Family in World Perspective (3) ¹
- SOC 310 Race & Ethnic Relations (3) ¹
- SOC 320 Social Stratification (3) ¹
- SOC 430 Sem in Social Change (3) ¹

¹ Denotes that the course has a prerequisite. Students should check the UH Hilo Catalog to find out the specific prerequisite(s) for each course.

Special Topics, Directed Studies/Research, and other courses not listed above must be approved by the program coordinator before taking the course in order to count for one of the certificate electives.

3. International/Intercultural Experience

Students have the option of meeting this requirement by participating in one of the following University-sponsored or approved programs:

A. International experience such as study abroad, cultural exchange, international internship, international service or volunteer experience, or international research project. The program advisors must approve these experiences in advance of the student's participation. The duration of this experience must be at least two weeks. This requirement can also be met if a student is an international student who has completed at least one semester at UH Hilo or if a U.S. student has had substantial international living experience.

B. Intercultural engagement and community involvement in the U.S.: Students may choose either an experience in the Hilo community or in a community in the U.S. outside of Hilo. Examples of acceptable substantive experiences include leadership roles in a UH Hilo intercultural/international student organization; development and implementation of an intercultural event or activity; intercultural partnership experiences such as serving as a peer mentor, conversation partner or global ambassador; or an internship, volunteer or service work with an intercultural/international focus. Of particular importance will be engagement in projects in which students identify issues of cultural conflict in a community or academic discipline and develop and/or implement plans for addressing these issues through cultural understanding or training. The program advisors will assist students with finding appropriate experiences and must approve of these experiences in advance of the student's participation. Students must be engaged in this experience for a minimum of 80 hours, and may combine two experiences to achieve the number of required hours.

4. Intercultural Events and Activities

Attendance and participation in five shorter events and activities of an intercultural or international nature, such as campus lectures, symposia, workshops, presentations, performances, service activities, and community events. An Events and Activities Reflection Paper will be required for each event or activity and must be submitted within seven days of the event or activity. A list of approved events and activities will be available for students. Other events and activities may also be

eligible, but must be approved in advance of participation.

5. Portfolio

Students must produce a portfolio as the culminating capstone of the program. As a way to synthesize his/her learning, students will complete the portfolio after the three components of the program described above are completed and deliver a presentation summarizing and highlighting aspects of his/her experiences. The portfolio is structured to enable students to demonstrate how he/she has met the program learning outcomes.

Portfolio Requirements

Outcome #1: Knowledge of other world cultures and global issues.

Course requirement: Earn 9 credits in courses chosen from the list of approved electives courses in addition to ANTH 150 Humankind Emerging (3).

Portfolio artifacts required:

- Samples of coursework that demonstrate a) deep knowledge of another culture or cultures and b) awareness of global issues from multiple perspectives. Samples should be drawn from at least three of the four courses.
- Reflective essay that explains how these artifacts demonstrate enhanced knowledge of world cultures and global issues.

Outcome #2: Ability to communicate effectively and appropriately within a cultural context at a basic level or higher in a language other than one's native language.

Course requirement: Completion, or waiver of, the second semester of a single language other than English.

Portfolio artifact required:

- A reflective essay that describes and reflects upon at least two situations during the student's international or domestic intercultural learning experiences when s/he relied on her/his competency in this language.

Outcome #3: Intercultural competence developed through studying and living abroad or through domestic intercultural experiences.

Portfolio artifacts required:

- Presentation of the student's results from instruments that assess intercultural development and competence, such as the Intercultural Development Inventory or the Intercultural Effectiveness Scale.
- A reflective essay about the international experience(s) that includes:
 - One or more insights about a culture other than one's own gained from the experience(s).
 - Discussion of how the student came to understand how another culture views a significant global issue.
 - An account of a collaboration or close interaction the student had with individuals from another culture(s), addressing how the student negotiated cultural differences.

Outcome #4: Enhanced global and intercultural knowledge through participation in campus or community-based co-curricular experiences.



Portfolio artifacts required:

- Reports on attendance and participation in five events or activities.

Outcome #5: Ability to reflect upon and integrate global learning experiences.

Portfolio artifacts required:

- An essay, digital story, video or other form of creative expression describing:
 - how the student's global studies and experiences have met the overall goals of the Global Engagement Certificate;
 - how the student's global learning experiences have impacted his/her other areas of academic study and career goals; and
 - how the student thinks these experiences will impact future personal and professional growth.
- Presentation (10 minutes) of this artifact.

Art

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Professor:

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- Andrew Grabar, M.F.A.
- Jean Ippolito, Ph.D.

Associate Professor:

- Jonathon E. Goebel, M.F.A.

The baccalaureate program in art is the study of visual art. The program explores the creative, experimental, and developmental aspects of art. The study of art involves the practice of art in the studio environment, art as an expression of our cultural heritage, and an understanding of the history of art. The program provides students, the university, and the community with visual arts experiences in regional, national, and international contexts.

Lower-division courses provide study in basic theory, study of different media, and the development of skills in the application and practice of studio art. Courses in the upper-division pursue advanced theory and studio applications involving explorations of individual expression.

The program emphases are painting, drawing, and printmaking studio. Other specific areas of study can be arranged through consultation with the Art Department and the College of Arts and Sciences.

Goals for Student Learning in the Major

The Art Department provides an environment supporting scholarship and practice in the visual arts. Students pursue an understanding of the practice of art forms, an understanding of art movements in the contemporary mainstream, comprehension of aesthetic theory, and a perspective of the history of art in Eastern and Western contexts.

The program goals for student learning are as follows:

1. The development of working relationships with materials, techniques, and procedures and training in creative exploration of individual expression and ideas.
2. The development of creative thinking and critical analysis in the area of the visual arts. Critical thinking skills and the ability to express this process are significant aspects of studio practice.
3. The understanding of the history of world cultures and art as an expression of cultural heritage.
4. An appreciation for visual art developments in the contemporary mainstream. Experience with and exposure to mainstream visual arts through national and international exhibitions establish a broader base of comprehension for contemporary movements in art.
5. Preparation for graduate studies in studio art. The areas of painting, printmaking, and drawing provide an educational program requiring portfolio development and the studio art preparation necessary for graduate school admission.
6. The development of a foundation in the visual arts for applied arts and teaching professions.
7. The development of organizational and planning skills and experiences required in the profession of art.

Prospects for Art Majors

The Bachelor of Arts degree in art provides study in art for all students and prepares students for graduate study in studio art and continued study in areas of applied arts and art education. Student achievements in art are represented by the student portfolio of work completed during study in the program.

Students can prepare for professions in graphic design, illustration, applied arts, and teaching. The study of studio media, methods, applications, art history, and art theory develop an understanding of the creative process. The study of Art addresses imagination, aesthetic concepts, creative applications, and the ability to consider, with equal awareness, minute details and larger perspectives.

Contributions to the General Education Program

Art is an important component of a strong liberal arts education. Students selecting art courses to fulfill General Education requirements develop abilities for skillful creative applications, the growth of imagination, and an insight into cultural relationships.

Special Aspects of the Art Major

Photography, textiles, fiber arts, ceramics and digital media art courses are offered at Hawai'i Community College or through the summer session. Please consult with the Art Department for additional information.

Student Art Association

The Student Art Association is a registered student organization sponsoring activities and projects relating to the study of art. The Association has presented papermaking demonstrations during Earth Day celebrations, sponsored visiting artists, and organizes and presents the Annual Student Art Exhibition featured in the Campus Center Galleries from May to September.

Curricula

- [B.A. in Art Requirements](#)



- [Digital Visualization and Communication Certificate](#)
- [Art Minor](#)
- [Art \(ART\) Courses](#)

B.A. in Art Requirements

Group 1. General Education Basic, Area, and Integrative Requirements.

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (45 credits)

- Foundation Studio Program (15)**
 - ART 112 Introduction to Digital Media (3)
 - ART 121 FP Studio: Beg Drawing (3)
 - ART 122 FP Studio: Beginning Painting (3)
 - ART 123 FP Studio: 2-D Design (3)
 - ART 124 FP Studio: 3-D Design (3)
- Studio Specialization (18)**
 - 18 additional credits in studio art, 6 credits of which must be at the 300- or 400-level.
- Art History Requirement (12)**
 - ART 175 Survey of World Art I (3) Survey of World Art I (3)
 - ART 176 Survey of World Art II (3) Survey of World Art II (3)
 - And **6 credits** in additional Upper Division ART Alpha Art History courses (6)

Total Semester Hours Required for the B.A. in Art

120 credits required.

Notes

1. A minimum of a 2.0 GPA is required.
2. A grade of "C" or better in each course required for the degree.
3. The B.A. in Art requires a total of only 30 credits of 300- or 400-level course work because of the number of 100- or 200-level courses required in the major.
4. The Foundation Studio Program requirements of 12 credits and ART 112 Introduction to Digital Media (3) should be completed, if possible, during the first two years of study. Juniors and seniors pursue individual art work through their sequence of studio courses.
5. Students are encouraged to develop a portfolio of their work.
6. To earn a Bachelor of Arts degree in Art, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)

7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
9. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Art Minor

Requirements (24 Credits):

- **Block I: (12)**
 - ART 121 FP Studio: Beg Drawing (3)
 - ART 122 FP Studio: Beginning Painting (3)
 - ART 123 FP Studio: 2-D Design (3)
 - ART 124 FP Studio: 3-D Design (3)
- **Block II: (3) Select one course from:**
 - ART 101 Intro To Visual Arts (3)
 - ART 270 Aspects of Western Art (3)
 - ART 280 Aspects of Asian Art (3)
- **Block III: (9)**
 - Select three studio [ART courses](#) at the 200-, 300-, or 400-level.

Digital Visualization and Communication Certificate

This certificate offers a pathway for students in the areas of digital visualization and communication with an interdisciplinary influence. The certificate provides a diverse structural study with practical skills in visual reasoning, digital imaging, communication, team collaboration, and creatively interpreting analytical data.

The Digital Visualization and Communication Certificate is designed for both majors and non-majors who wish to show expertise in the areas of digital arts and visualizing data. Prerequisites must be completed before registering for individual courses in the certificate.

Total Required Credits: 18

Choose one of: (3)

- CS 130 Beg Graphics, Game Program (3)
- CS 135 Animation Programming (3)
- CS 200 Web Technology I (3)

Choose one of: (3)

- ART 112 Introduction to Digital Media (3)
- CS 150 Intro To Computer Science I (3)

Choose one of: (3)

- ART 121 FP Studio: Beg Drawing (3)
- ART 123 FP Studio: 2-D Design (3)

Choose one of: (3)

- ART 207 Photography Studio I (3)
- CS 340 Graphical User Interfaces (3)

Choose one of: (3)

- ENG 285 Intro to News Writing & Report (3)



- ENG 286A Intro to Fiction Writing (3)
- ENG 286B Intro to Poetry Writing (3)
- ENG 201 Global Cinema (3)
- ENG 200G Intro Graphic Novels & Comics (3)
- ENG 318 Playwriting (3)

Capstone Course- Choose one of: (3)

- ART 401 Applied Digital Visualization (3)
- CS 475 Data Visualization (3)

Astronomy

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Office: Life Sciences, Room 2

Tel: (808) 932-7506/7507

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Professor:

- [Philippe Binder](#), Ph.D.

Associate Professor:

- [Rene Martin](#), Ph.D.
- [Marianne Takamiya](#), Ph.D.

Assistant Professors:

- [Kathy Cooksey](#), Ph.D.
- [Heather Kaluna](#), Ph.D.

Instructors:

- [John Hamilton](#), M.S.

Technician:

- [John Coney](#), M.Ed.

Astronomers seek answers to some of the biggest and oldest questions in science: How did the Universe begin? How will it end? What is in the Universe? How do stars, planets, galaxies and black holes form? How do they end? Addressing these questions incorporates physics, mathematics, chemistry, biology, computer science, optics and instrumentation, and even history and philosophy are companion fields. The UH Hilo academic astronomy program leverages the astronomy infrastructure of Mauna Kea and the University Park of Science and Technology to provide students with knowledge of astronomy and astrophysics, and training in modern methods of observational astronomy.

The B.S. degree program provides the skills necessary for students seeking careers in astronomy, as professional research astronomers, observatory technical staff members, or work in related fields that include planetary geosciences, teaching, and outreach.

Mission

The UH Hilo astronomy program aims to (a) develop the science knowledge and analytic skills of students, whether they be majors or not, through a focus on the field of astronomy; and (b) instill an appreciation

of science, particularly astronomy, in students. The program provides the students with transferable skills so they can excel in a wide range of STEM-related fields. Through the study of astronomy, graduates will also learn to appreciate and understand science more broadly, enabling them to be more informed citizens. The B.S. degree program, taking advantage of our access to Mauna Kea Observatories, provides the training needed for students seeking careers in astronomy--as professional astronomers, observatory technical staff, and educators. Our program supports the liberal arts mission of the University by providing general education courses in a field of major importance to the State of Hawai'i.

Program Learning Outcomes

The B.S. program in astronomy is designed to develop student mastery of:

- Major fields of modern astronomy: stars, planets, interstellar/intergalactic gas, galaxies, and cosmology;
- Basics of mechanics, optics, electromagnetism, atomic structure, and modern physics; and
- Practical applications such as instrumentation, computation, modern observational techniques, and data analysis.

Goals for Student Learning in the Major

Graduates are also expected to:

- understand the relations between astronomy and other areas of science;
- solve problems with scientific reasoning and critical thinking skills;
- communicate complex ideas effectively, both verbally and in writing; and
- appreciate the impact of astronomy in the state of Hawai'i.

We also try to provide every opportunity for the students to conduct original research with faculty or Mauna Kea Observatories staff.

Special Aspects of the Astronomy Program

The Department is housed in the new Sciences and Technology Building, which provides modern offices, classrooms, introductory and advanced undergraduate labs, and faculty research facilities that offer students an ideal working environment.

The Department owns an observatory site on Mauna Kea among some of the largest and most powerful instruments in the world. A planned new telescope will provide students with the opportunity to pursue research-grade projects under the supervision of Department faculty, who have active research projects in several areas of astronomy. In addition, the Observatory Internship program, coordinated with institutions based in the University Park of Science and Technology, offers students a unique opportunity to gain practical or research experience at astronomical observatories atop Mauna Kea prior to obtaining their degree.

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 a small 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. Funding for travel to meetings is available from this program.

Affiliated faculty from the University Technology Park and other facilities offer a rich array of supplemental Special Topics courses which expand



opportunities for students.

Curricula

- [B.S. in Astronomy Requirements](#)
- [Astronomy Minor](#)
- [Minor in Earth and Space Science](#)
- [Astronomy \(ASTR\) Courses](#)

B.S. in Astronomy Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements

1. Required courses in Astronomy and Physics (53 credits)

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR 250-250L Observational Astronomy (3), Observational Astronomy Lab (2)
- ASTR/PHYS 260-260L Computational Physics & Astron (3), Computational Phys & Astr Lab (1)
- ASTR 350-350L Stellar Astrophysics (3), Stellar Astrophysics Lab (2)
- ASTR 351-351L Galactic & Extragal Astrophys (3), Galactic & Extragal Astr Lab (2)
- ASTR 495A-495B Seminar (1), Seminar (1)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- PHYS 274 Gen Phys III: Intro Modern Phy (3)
- PHYS 331 Optics (3)
- PHYS 341 Thermodynamics (3)
- And **6 credits** in additional [PHYS](#) or [ASTR](#) at the 300- or 400-level, not including ASTR 400 Observatory Internship (1-6)

2. Required courses in related fields (24 credits)

- CS 150 Intro To Computer Science I (3)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- MATH 205-206 Calculus I (4), Calculus II (4)
- MATH 231-232 Calculus III (3), Calculus IV (3)
- MATH 300 Ordinary Diff Equations (3)

Total Semester Hours Required for the B.S. in Astronomy

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. To earn a Bachelor of Science degree in Astronomy, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in the Catalog.)
3. A 2.0 or better in every required course for the major is required.
4. A minimum of 30 credits is required at the 300- or 400-level.
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Astronomy Minor

Requirements (15 credits):

- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR 250 Observational Astronomy (3)
- And **6 credits** in additional [ASTR courses](#) at the 300- or 400-level, not including ASTR 400 Observatory Internship (1-6).

Minor in Earth and Space Science

Requirements (24 credits):

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR/GEOL 352 Plants and Exoplanets (3)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- GEOL 205 Geology Of Hawaiian Islands (3)
- And **one** of the following courses:
 - GEOG 300 Climatology (3)
 - GEOL 450 Geological Remote Sensing (3)
 - GEOG 470 Remote Sensing/Air Photo (3)

Note: The minor in Earth and Space Science is undergoing review. Students are advised to consult with a Geology or Astronomy advisor before pursuing this program of study.

Biology

Department Chair: Patrick Hart, Ph.D.

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Tel: (808) 932-7506/7507

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Professors:

- Leon Hallacher, Ph.D. (Professor Emeritus)
- Patrick Hart, Ph.D.
- Don Hemmes, Ph.D. (Professor Emeritus)
- William Mautz, Ph.D.
- Rebecca Ostertag, Ph.D.

Associate Professors:

- Jonathan Aways, Ph.D.
- Cedric Muir, Ph.D.

Assistant Professors:

- Stan T. Nakanishi, Ph.D.
- Matthew Knope, Ph.D.
- Jolene T. Sutton, Ph.D.
- Li Tao, Ph.D.

Instructors:

- Jenni K. Guillen
- Christine Kornet, M.S.

Joint Faculty:

- Adam Pack, Ph.D.

Biology is the study of living things and encompasses many areas of study including:

- **biochemistry:** the study of the complex chemical composition and chemical activities of living things;
- **botany:** the study of plants;
- **cell biology:** the study of structures and activities of individual cells;
- **ecology:** the study of relationships between living things and their environment;
- **microbiology:** the study of living things too small to be seen with the unassisted eye;
- **molecular biology and genetics:** the study of inherited characteristics and the molecular basis of their inheritance and function;
- **zoology:** the study of animals.

Mission

The mission of the Department of Biology is to provide students at the University of Hawai'i at Hilo with sound and rigorous training in the biological sciences. The program emphasizes hands-on, individualized learning for students and active faculty research with opportunities for students to participate.

Program Goals

- Outcome 1 (Knowledge): Demonstrate mastery of core concepts in Cell and Molecular Biology
- Outcome 2 (Knowledge): Demonstrate mastery of core concepts in Ecology and Evolution
- Outcome 3 (Application): Develop analytical and hypothesis testing skills to address biological problems.

- Outcome 4 (Analysis): Acquire proficiency with quantitative concepts, statistical analyses, and graphical presentation of data
- Outcome 5 (Communication): Develop skill in written and oral interpretation, synthesis, and presentation of data
- Outcome 6 (Application): Develop skill in the use of basic laboratory and field equipment for biological science and laboratory safety

Goals for Student Learning in the Major

The Biology program trains students in a wide variety of biological disciplines ranging from ecology, evolution, and conservation biology to cell and molecular biology. Two degree options (Bachelor of Arts and Bachelor of Science), prepare students for the job market or graduate school in biological sciences, as well as for professional schools of medicine, pharmacy, dentistry, nursing, physical therapy, veterinary medicine, and other health-related programs. The program also provides the scientific background to teach biology at the intermediate and high school levels.

Students in all tracks acquire a thorough grounding in the major topical areas of biology, including:

- Cell Biology—biochemistry and cell organelle processes, macromolecules, enzyme activity and regulation, and cell-cell communication;
- Molecular Biology and Genetics—molecular genetics, including DNA replication and mutation, gene structure, regulation of gene expression, bacteriophages and viruses, and genetic engineering;
- Organismal Biology—diversity of organisms, including anatomy and physiology, phylogenetic relationships, classification, morphology, life histories, and general biology of all life forms; adaptations of organisms to habitats; and origin of life;
- Population Biology, Evolution, and Ecology—natural selection and adaptation, population genetics, patterns of evolution, origin of life, population ecology, community ecology, ecosystems, and human impacts.

Biology majors also acquire analytical skills for applying scientific methodology to problems, hypothesis testing, and an understanding of the limitation of science as a way of knowing. They develop proficiency with quantitative concepts and familiarity with units of measure, statistical analyses, and the graphical and tabular presentation of data. They will also develop skill in oral and written presentation of scientific information.

Non-biology majors who fulfill part of their General Education requirements with a Biology course will gain an appreciation of modern biology to apply to understanding of current societal impacts of biology such as advances in biomedicine, environmental issues, and biological evidence in jury proceedings.

Special Aspects of the Biology Program

The two degree options available to undergraduates interested in studying biology are the Bachelor of Arts in Biology and the Bachelor of Science in Biology. A Biology minor is also available. Students in the BS program have two tracks from which to choose: the "Cell, Molecular and Biomedical Sciences Track" or the "Ecology, Evolution, and Conservation Biology Track."

Instruction includes classroom, laboratory, and field experiences emphasizing the unique environment of Hawai'i. Majors may have the opportunity to work on research projects directed by the faculty.

All Biology majors complete a capstone seminar course. They research



an issue in the biological sciences, organize the material, and make a critical oral presentation with illustrations. This presentation is reviewed by faculty and student peers and evaluated for the quality of scientific preparation, delivery, and audiovisual aids.

Students also complete one or more senior-level laboratory courses that qualify for Writing Intensive credit. In these courses they write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.

BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are courses for non-majors and not credited toward a major or minor in Biology.

Advice for Biology Majors

- Meet with your faculty advisor **each semester** before registering.
- Take chemistry courses your freshman year. They are prerequisites for many required biology courses.
- Pay attention to all course requirements for your major. Find your track below.
- When planning, pay attention to course prerequisites and how often courses are offered. (see the [Course Listings](#) section of this catalog).
- Remember that you must meet **all** requirements to graduate, including general education courses; writing intensive courses; Hawaiian, Asian, and Pacific courses; and enough upper level courses (see the [Baccalaureate Degree Requirements](#) section of this catalog).

Curricula

- [B.A. in Biology Requirements](#)
- [B.S. in Biology: Cell, Molecular & Biomedical Sciences Track Requirements](#)
- [B.S. in Biology: Ecology, Evolution and Conservation Track Requirements](#)
- [Biology Minor](#)
- [Biology \(BIOL\) Courses](#)

B.A. in Biology Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (73-77 credits)

1. Required courses from Biology

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1) ¹
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1) ¹
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)
- BIOL 280 Biostatistics (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)
- BIOL 375 Biology of Microorganisms (3)
- BIOL 495A-495B Biology Seminar (1), Biology Seminar (1)

2. Required courses from related fields

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- One course from the below:
 - ENG 225 Writng for Sci & Technology (3)
 - ENG 286A Intro to Fiction Writing (3)
 - ENG 287 Introduction to Rhetoric (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 327 Bioethics (3)
- One Physics course track:
 - PHYS 151-151L College Physics I (3), College Physics I Lab (1) **and** PHYS 152-152L College Physics II (3), College Physics II Lab (1)
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) **and** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 125 Applied Calculus (3) **or** MATH 205 Calculus I (4)

3. Electives:

Group 1 Electives:

Choose 4 courses from the following BIOL courses (12)

- BIOL 243 Human Anatomy & Physiology I (3)
- BIOL 244 Human Anatomy & Physiology II (3)
- BIOL 376 Genetics (3)
- BIOL 381 Conservation Biology (3)
- BIOL 410 Biochemistry (3)
- BIOL 415 Cell Biology (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 437 Marine Mammal Behavior (3)
- BIOL 477 Avian Biology (3)
- BIOL 481 Trop Island Ecology & Evol (3)
- BIOL 394 Special Topics in Subject Matter (To Be Arranged) **or** BIOL 494 Special Topics in Subject Matter (To Be Arranged)

Group 2 Electives:

Choose 2 courses from the following BIOL laboratory courses, 1 of which must be at the 400-level (3-4)

- BIOL 243L Human Anatomy & Physio I Lab (1)
- BIOL 244L Human Anatomy & Physio II Lab (1)
- BIOL 357L Evolutionary Genetics Lab (1)
- BIOL 375L Biology of Microorganisms Lab (1)



- BIOL 376L Genetics Lab (2)
- BIOL 410L Biochemistry Lab (2)
- BIOL 415L Cell Biology Lab (2)
- BIOL 477L Field Ornithology (2)
- BIOL 481L Trop Island Ecology & Evol Lab (2)

¹ BIOL 171 Introductory Biology I (3) and BIOL 172 Introductory Biology II (3) are offered every semester, and can be taken in either order.

Total Semester Hours Required for the B.A. in Biology

120 credits required.

Additional Courses Recommended For Specific Plans After Graduation

- **Graduate studies in biology:** At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- **Application to medical, pharmacy, dental, veterinary school or other health-related fields:** At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- **Careers that may include teaching:** one or more semesters of BIOL 496 Tchg Asstance & Tutorg in Biol (1-3).
- **Careers in environmental biology:** a course in geographic information systems (GEOG 480 Geog Info Sys & Visualization (3) or GEOL 445 GIS for Geology (3)).

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are non-major courses and do not count toward the major or minor in Biology.
3. 100-level courses should be completed by the student prior to enrollment in 200-, 300-, or 400-level courses.
4. Students should begin chemistry course their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
5. Students must earn a minimum grade of "C-" in all required and prerequisite courses.
6. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
7. To earn a Bachelor of Arts degree in Biology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
8. Many upper-level Biology courses are writing intensive and therefore offer the ability for students to complete that university requirement. In these courses students write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.
9. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
10. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course](#)

[listings](#) in this Catalog.

11. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

B.S. in Biology: Cell, Molecular & Biomedical Sciences Track Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (79-81 credits)

1. Required courses from Biology (44)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1) ¹
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1) ¹
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)
- BIOL 280 Biostatistics (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)
- BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)
- BIOL 410-410L Biochemistry (3), Biochemistry Lab (2)
- BIOL 415-415L Cell Biology (3), Cell Biology Lab (2)
- BIOL 376-376L Genetics (3), Genetics Lab (2)
- BIOL 495A-495B Biology Seminar (1), Biology Seminar (1)

2. Required courses from related fields (37)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- One or more courses from the selection:
 - ENG 225 Writng for Sci & Technology (3)
 - ENG 286A Intro to Fiction Writing (3)
 - ENG 287 Introduction to Rhetoric (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 327 Bioethics (3)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1)
OR PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)



- PHYS 152-152L College Physics II (3), College Physics II Lab (1)
OR PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 205-206 Calculus I (4), Calculus II (4)

¹ *Biology 171 and 172 are offered every semester, and can be taken in either order.*

Total Semester Hours Required for the B.S. in Biology: Cell, Molecular, and Biomedical Sciences Track

120 credits required.

Recommended Biology Electives for Majors

- BIOL 243 Human Anatomy & Physiology I (3)
- BIOL 244 Human Anatomy & Physiology II (3)
- BIOL 340 Cellular Neurobiology (3)
- BIOL 394 Special Topics in Subject Matter (To Be Arranged)
- BIOL 494 Special Topics in Subject Matter (To Be Arranged)
- BIOL 436 Animal Cognition (3)
- BIOL 437 Marine Mammal Behavior (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 461 Immunology (3)
- BIOL 477 Avian Biology (3)

Additional Courses Recommended For Specific Plans After Graduation

- **Graduate studies in biology:** At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- **Application to medical, pharmacy, dental, veterinary school or other health-related fields:** At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- **Careers that may include teaching:** one or more semesters of Teaching Assistance and Tutoring in Biology (BIOL 496 Tchg Asstance & Tutorg in Biol (1-3)).
- **Careers in environmental biology:** a course in geographic information systems (GEOG 480 Geog Info Sys & Visualization (3) or GEOL 445 GIS for Geology (3)).

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are non-major courses and do not count toward the major or minor in Biology.
3. 100-level courses should be completed by the student prior to enrollment in 200-, 300-, or 400-level courses.
4. Students should begin chemistry courses their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
5. Students must earn a minimum grade of "C-" in all required and prerequisite courses.

6. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
7. To earn a Bachelor of Science degree in Biology, students must fulfill the requirements for the major and meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
8. Many upper-level Biology courses are writing intensive and therefore offer the ability for students to complete that university requirement. In these courses students write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.
9. Students completing the B.S. Biology in Cell, Molecular, and Biomedical Sciences can choose to take four additional CHEM credits beyond CHEM 242-242L to receive a [Chemistry Minor](#).
10. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
11. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
12. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

B.S. in Biology: Ecology, Evolution and Conservation Track Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (77-79 credits)

1. **Required courses from Biology (40)**
 - BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1) ¹
 - BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1) ¹
 - BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)
 - BIOL 280 Biostatistics (3)
 - BIOL 281-281L General Ecology (3), General Ecology Lab (2)
 - BIOL 357-357L Evolution (3), Evolutionary Genetics Lab (1)
 - BIOL 375 Biology of Microorganisms (3)
 - BIOL 381 Conservation Biology (3)
 - BIOL 376 Genetics (3) **or** BIOL 467 Ecological Genetics (3)
 - BIOL 481-481L Trop Island Ecology & Evol (3), Trop Island Ecology & Evol Lab (2)



- BIOL 495A-495B Biology Seminar (1), Biology Seminar (1)
- 2. **Required courses from related fields (31-33)**
 - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
 - CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
 - CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
 - CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
 - PHYS 151-151L College Physics I (3), College Physics I Lab (1)
OR PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
 - PHYS 152-152L College Physics II (3), College Physics II Lab (1)
OR PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
 - MATH 205 Calculus I (4)
 - One or more courses from the selection:
 - ENG 225 Writing for Sci & Technology (3)
 - ENG 286A Intro to Fiction Writing (3)
 - ENG 287 Introduction to Rhetoric (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 327 Bioethics (3)
- 3. **Electives (6): Choose 6 credits from the following BIOL courses**
 - BIOL 394 Special Topics in Subject Matter (To Be Arranged) **or** BIOL 494 Special Topics in Subject Matter (To Be Arranged)
 - BIOL 410 Biochemistry (3)
 - BIOL 415 Cell Biology (3)
 - BIOL/PSY 437 Marine Mammal Behavior (3)
 - BIOL 443 Ecological Animal Physiology (3)
 - BIOL 445 Behavioral Ecology & Evolution (3)
 - BIOL 455 Plant Ecology (3)
 - BIOL 460 Plant Diversity & Evolution (3)
 - BIOL 477 Avian Biology (3)

¹ *Biology 171 and 172 are offered every semester, and can be taken in either order.*

Total Semester Hours Required for the B.S. in Biology: Ecology, Evolution and Conservation Track

120 credits required.

Additional Courses Recommended For Specific Plans After Graduation

- **Graduate studies in biology:** At least two semesters of Directed Studies (BIOL 199, 299, 399, or 499).
- **Application to medical, pharmacy, dental, veterinary school or other health-related fields:** At least one semester of Directed Studies (BIOL 199, 299, 399, or 499) and participation in volunteer and shadowing experiences in the local medical, pharmacy, dental, or veterinary community as appropriate. As prerequisite courses for professional schools may vary, students should seek advising early in their academic careers to develop an academic plan.
- **Careers that may include teaching:** one or more semesters of Teaching Assistance and Tutoring in Biology (BIOL 496 Tchg Asstnce & Tutorg in Biol (1-3)).
- **Careers in environmental biology:** a course in geographic information systems (GEOG 480 Geog Info Sys & Visualization (3) or GEOL 445 GIS for Geology (3)).

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. BIOL 101 General Biology (3) and BIOL 101L Gen Biol Lab (1) are non-major courses and do not count toward the major or minor in Biology.
3. 100-level courses should be completed by the student prior to enrollment in 200-, 300-, or 400-level courses.
4. Students should begin chemistry courses their freshmen year if they plan to complete their academic program in four years. Chemistry courses are often prerequisites for required biology classes.
5. Students must earn a minimum grade of "C-" in all required and prerequisite courses.
6. The upper division credits needed for graduation for all degrees in Biology are met in the process of completing these degrees.
7. To earn a Bachelor of Arts or Bachelor of Science degree in Biology, students must fulfill the requirements for the major and meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
8. Many upper-level Biology courses are writing intensive and therefore offer the ability for students to complete that university requirement. In these courses students write a series of laboratory reports demonstrating their ability to perform experiments and to organize, analyze, and interpret the quantitative results of experimental work.
9. Students completing the B.S. in Cell and Molecular Biology can choose to take four additional CHEM credits beyond CHEM 242-242L to receive a [Chemistry Minor](#).
10. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
11. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
12. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Biology Minor

Cell, Molecular & Biomedical Science Track Requirements (21 credits)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) **or** BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)
- BIOL 281 General Ecology (3)
- And **3 credits** in additional [BIOL courses](#) numbered above BIOL 125. (3)

Note:

1. Students must pass each course required for the Biology Minor with a minimum grade of a C-

Ecology, Evolution and Conservation Biology



Track Requirements (22 credits)

- BIOL 125 Intro Cell & Molecular Biol (3) **or** BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- BIOL 156 Nat Hist & Conservatn Hawn Isl (3)
- BIOL 281-281L General Ecology (3), General Ecology Lab (2)
- BIOL 357 Evolution (3)

Note:

1. Students must pass each course required for the Biology Minor with a minimum grade of a C-

Chemistry

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- [Jon-Pierre Michaud](#), Ph.D., Toxicology, Pharmacology and Environmental Chemistry
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Chemistry is the study of matter and energy and the changes that they undergo. Everything that is known in the physical universe is made up of either matter or energy and the rest is just empty space. Chemistry often is referred to as the central science, and an understanding of chemistry can be a powerful tool. All other branches of the natural sciences will touch upon the subject of chemistry and, indeed, here at UH Hilo all majors in the Natural Sciences Division except for Mathematics and Physics are required to take courses in chemistry.

Mission

The mission of the undergraduate degree program in chemistry is to offer a general and specific set of courses in several areas in chemistry that will provide students within its majors a fundamental understanding,

through qualitative and quantitative reasoning, of matter and energy and the changes that they undergo. The program is designed to prepare students for advanced degrees in graduate or professional programs and for students who are seeking to immediately enter the work force as teachers and technicians. Because few students major in chemistry, graduates tend to find options for further study and career opportunities.

Goals for Student Learning in the Major

Both programs of study are designed to provide students with the following:

- A fundamental understanding of analytical, inorganic, instrumental, organic and physical chemistry.
- A basic understanding of physics.
- Basic knowledge of the differential and integral calculus and statistical analysis.
- Basic chemistry laboratory skills.
- Skills to do chemical research.
- The ability to engage in scientific inquiry.
- An understanding of the relationship of chemistry and the environment.
- The experience of preparing and presenting a seminar.

In addition, the Health Sciences Emphasis imparts to students a basic knowledge of anatomy, physiology, biochemistry, and genetics.

Prospects for Chemistry Graduates

Either B.A. curriculum prepares the student for the job market immediately after graduation or for further education in graduate or professional school. As the name implies, the Health Science emphasis is designed for students who are seeking careers in health related fields such as medicine. Chemistry majors who also complete the UH Hilo Teacher Education Program may apply for initial basic teaching certificates in elementary and secondary education in the State of Hawai'i.

Chemistry for Non-Majors

Non-chemistry majors who choose to fulfill part of their General Education requirements with **CHEM 100 Chemistry and Society (3)** or **CHEM 151 Elementary Survey of Chemistry (3)** will gain insight into the chemical nature of the universe. It is also possible to pursue a minor in chemistry. Requirements for all programs are described below.

Majors

The Chemistry Program offers two majors designed to meet the differing needs of students:

- **B.A., Chemistry:** A traditional curriculum with a strong physical science emphasis
- **B.A., Chemistry- Biosciences:** Combines the study of chemistry with 21 semester hours of selected biology courses

Curricula

- [B.A. in Chemistry Requirements](#)
- [Pre-Pharmacy Certificate](#)
- [B.A. in Chemistry: Biosciences Requirements](#)
- [Chemistry Minor](#)
- [Chemistry \(CHEM\) Courses](#)



B.A. in Chemistry Requirements

Group 1. General Education Basic, Area, and Integrative Requirements.

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (65 credits)

- 1. Required courses from Chemistry (41)**
 - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
 - CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
 - CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
 - CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
 - CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
 - CHEM 320 Descriptive Inorganic Chem (3)
 - CHEM 351-351L Physical Chemistry I (3), Physical Chem I Lab (1)
 - CHEM 352-352L Physical Chemistry II (3), Physical Chem II Lab (1)
 - CHEM 421 Inter Inorganic Chem (3)
 - CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
 - CHEM 495A-495B Seminar (1), Seminar (1)
- 2. Required courses from related fields (24)**
 - BIOL 410 Biochemistry (3)
 - MATH 205-206 Calculus I (4), Calculus II (4)
 - MATH 231 Calculus III (3)
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
 - PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)

Total Semester Hours Required for the B.A. in Chemistry

120 credits required.

Additional recommended courses include

- Eight semester hours of a foreign language ([Spanish](#) or [Japanese](#))
- ENG 225 Writing for Sci & Technology (3)
- MATH 300 Ordinary Diff Equations (3)
- MATH 311 Intro Linear Algebra (3)

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students must earn at least a grade of C (2.0) in each course required for the major.
3. Physical Chemistry majors must take at least 21 credits at the 300- or 400-level.
4. To earn a Bachelor of Arts in Chemistry, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

B.A. in Chemistry: Biosciences Requirements

Group 1. General Education Basic, Area, and Integrative Requirements.

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (75-77 credits)

- 1. Required courses from Chemistry (38)**
 - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
 - CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
 - CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1) **and** CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
 - CHEM 320 Descriptive Inorganic Chem (3)
 - CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
 - CHEM 350-350L Phys Chem for Life Sci (3), Phys Chem for Life Sci Lab (2)
 - CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
 - CHEM 495A-495B Seminar (1), Seminar (1)
 - **and** a minimum of **three** additional credits in [CHEM courses](#) above the 200-level. CHEM 341 Qualitative Org Analysis (2) or CHEM 441 Inter Organic Chem (3) is recommended.

**2. Required courses from related fields (37)**

- MATH 205 Calculus I (4)
- MATH 206 Calculus II (4)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1) **or** PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 152-152L College Physics II (3), College Physics II Lab (1) **or** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 410 Biochemistry (3)
- BIOL 376 Genetics (3)

Total Semester Hours Required for the BA in Chemistry: Biosciences

120 credits required.

Additional recommended courses include

- Eight semester hours of a foreign language (Spanish or Japanese)
- ENG 225 Writng for Sci & Technology (3)
- MATH 300 Ordinary Diff Equations (3)
- MATH 311 Intro Linear Algebra (3)

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Health Sciences Chemistry majors must take at least 24 credits at the 300- or 400-level.
3. To earn a Bachelor of Arts in Chemistry, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Chemistry Minor**Requirements (20 credits):**

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- And a combination of lecture and laboratory [CHEM course](#) courses for a total of **4-credits** beyond CHEM 242-242L

Pre-Pharmacy Certificate**Coordinator:** Norbert Furumo, Ph.D.**Email:** nfurumo@hawaii.edu

The Pre-Pharmacy Certificate, offered by the Department of Chemistry, College of Arts & Sciences, in conjunction with the Daniel K. Inouye College of Pharmacy Pre-Pharmacy Program is a minimum two-year comprehensive preparatory program of study toward admittance into the professional curriculum leading to a Doctor of Pharmacy Degree (Pharm.D.) The Pre-Pharmacy Certificate provides students with the necessary prerequisite course requirements for application to the UHH Pharm.D. Program.

The Pre-Pharmacy Certificate program helps prepare students toward successful application to Colleges of Pharmacy. Students also have the option to complete a four-year undergraduate degree program in Chemistry- Biosciences during and after completion of their Pre-Pharmacy requirements, thereby expanding their career options after graduation. Students are strongly encouraged to start their freshman year with CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) which are prerequisites for Organic Chemistry (CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1) and CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)). Students are also encouraged to take the math placement exam during their freshman year. For all prerequisite coursework, students must earn a letter grade of "C" or better.

Advising is a very important resource designed to help students complete the requirements of the University and their individual majors. Students should consult with their advisor at least once a semester to decide on courses, check progress towards graduation, and discuss career options and other educational opportunities provided by UH Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree and/or certificate requirements.

Program Curriculum

Curriculum requirements include a total of 68-69 credit hours (30-31 pre-core, 36 core science). This coursework is structurally aligned with the curriculum requirements towards a BA in Chemistry- Biosciences or a BA/BS degree in Biology at UH-Hilo. Details of course listings and transfer tables are available at:

<http://pharmacy.uhh.hawaii.edu/academics/prepharm/curriculum.php>

Students should meet with the Pre-Pharmacy advisor to ensure that they enroll in courses that will enable them to take recommended Pre-Pharmacy General Education courses. This is particularly important for students who plan to earn the BA in Pharmacy Studies while earning their Doctor of Pharmacy Degree.

1. Group 1. Pre-Core Requirements (31) The Pre-Core

Requirements should include:

- English Composition (3)
- Language Arts (3)
- Quantitative Reasoning (MATH 205 Calculus I (4)) (4)
- World Cultures (3)
- Humanities (6)
- Social Sciences (6)
- Speech (3)
- Economics (3)

2. Group 2. Natural Science Requirements (36)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)



- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) **OR** BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)

Consequently, our mission is to:

- explore and promote diverse theories and perspectives related to communication;
- facilitate practical skills for effective communication in multicultural contexts;
- develop leaders that can relate to global and local cultures;
- cultivate healthy individuals, relationships, organizations, and communities;
- promote dialogue among diverse individuals, communities, and organizations.

We seek to empower our students by facilitating the development of skills that encourage replacing monologue with dialogue, fragmentation with connection. Students are encouraged to develop projects relevant to their personal and professional goals. They develop the talents and skills necessary to succeed as leaders and change agents in a wide variety of settings.

Communication

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- [Zheng An](#), Ph.D.

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- [Rayna Morel](#), M.A.

The UH Hilo Department of Communication offers a communication major and minor and courses in the areas of interpersonal, intercultural, organizational, public, and media communication.

The Department of Communication provides a strong foundation in human communication theories and practices. Our program emphasizes multicultural team and community building in a personalized learning environment. The program emphasizes multicultural perspectives, authentic communication, valuing diversity, professional and personal empowerment, and enhanced self-awareness. Students develop oral, written, group, interpersonal, intercultural, and organizational communication skills that prepare them for leadership and citizenship in a diverse civil democratic society.

Mission

The mission of the Communication Department is guided by the assumption that culture permeates every level of communication.

Goals for Student Learning in the Major

Upon graduation students should possess the following knowledge and abilities:

- Knowledge. Students will be able to:
 - Describe the major paradigms, theories, concepts, and subfields within the discipline.
 - Discuss non-Western and alternative communication perspectives.
- Performance Skills. Students will be able to:
 - Make effective public or professional presentations.
 - Demonstrate interpersonal communication competence.
 - Participate in group discussions and facilitate dialogue.
 - Display sensitivity to the perspectives of others.
- Capstone Paper or Project. Students will be able to:
 - Design, implement, and/or evaluate a research project, a communication intervention, or a campaign.

Special Aspects of the Communication Program

Communication and Culture Emphasis

Located in one of the most diverse areas of the world, our program places the relationship between culture and communication at the center of our curriculum. Our program has a special emphasis on communication and culture as they influence and are influenced by wisdom, context, process, and community.

- *Wisdom:* All cultures have accumulated indigenous wisdom and information that provide valuable insights on the relationship between humanity and communication. Consequently, our department is committed to the advancement of diverse theoretical standpoints. We explore both traditional and non-traditional theories of communication. We seek to provide students with a wide range of communication models and concepts that they can meaningfully relate to their diverse cultural backgrounds and experiences.
- *Context:* Given UH Hilo's unique location, our department especially aims to broaden and deepen our students' understanding of communication in Pacific-Asian contexts. We strive to encourage students to continually consider the role that context plays in organizational, professional, interpersonal, and media communication. Additionally, we foster the ability to respect, adapt to, bridge, change, translate, and transcend this context, as is



appropriate.

- *Process:* As the metaphor of “island laboratory” indicates, our department encourages students to experience the multicultural aspects of Hawai’i. We believe that seeing local events in the global context and globalization in the local context is an important asset of a world citizen in the 21st century. Culture can be a contested zone that generates conflicting views and clashes of opinions. Conflict, however, also opens up the possibility of dialogue.
- *Community:* Communication and culture work together in the formation of communities. In an “ideal” multicultural community, human dialogue overshadows monologue, and connection replaces fragmentation. Our program encourages multicultural team-building, community-building, and dialogue. Further, our program seeks to empower our students as facilitators of intercultural dialogue.

Prospects for Graduates

The ability to communicate effectively in diverse contexts is highly desirable. In a report on the fastest growing careers, the U.S. Department of Labor stated that communication skills will be in demand well into the 21st century. When 1,000 faculty members from a cross-section of disciplines were asked to identify basic competencies for every college graduate, communication skills topped the list. Executives with Fortune 500 companies indicate the college students need better communication skills that include the ability to work in teams and with people from diverse backgrounds.

With its multicultural emphasis, our program provides a foundation for students to pursue graduate study of careers in education, business, counseling, social or human services, the media, journalism, law, public relations, health care, organizational management, community development, performance, or in any other field where intercultural communication competence is crucial.

Curricula

- [B.A. in Communication Requirements](#)
- [Communication Minor](#)
- [Communication \(COM\) Courses](#)

B.A. in Communication Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (33 credits)

1. **Core Knowledge and Behaviors Courses (9)**

- COM 200 Interpersonal Comm (3)
- COM 251 Public Speaking (3)
- COM 270 Intro to Theories of Human Com (3)

2. **Culture or Diversity Course (3) (Choose one of the following courses)**

- COM 241 Health, Culture and Diversity (3)
- COM 260 Media and Culture (3)
- COM 344 Sustainability, Com & Culture (3)
- COM 359 Intercultural Communication (3)

3. **COM Electives and Advanced Courses (18 credits, at least 9 of which must be 300- or 400-level COM courses) (See Note 2) (18)**

4. **Capstone Paper or Project (Choose one course from the following courses) (3)**

- COM 400 Seminar in Human Dialogue (3)
- COM 441 Leadership & Communication (3)
- COM 444 Public Relations (3)
- COM 451 Communication and Ethnography (3)
- COM 456 Asian Perspectives on Commun (3)
- COM 460 Mass Media Analysis (3)
- COM 494 Special Topics in Subject Matter (To Be Arranged) ¹
- COM 499 Directed Studies (To Be Arranged) ¹ (**See Note 6**)

¹ With advisor approval 6 semester hours of the total elective hours may be from a related discipline.

Total Semester Hours Required for the B.A. in Communication

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. A student may choose COM 494 Special Topics in Subject Matter (To Be Arranged) or COM 499 Directed Studies (To Be Arranged) to complete the capstone course requirement. However, it is strongly recommended that students complete COM 350 Intro Human Commun Research (3) before pursuing this option.
3. A minimum of 12 credits out of the total 33 credits required for the major must be taken at the 300- or 400-level.
4. At least 45 total credits must be earned at the 300- or 400-level for graduation.
5. To earn a Bachelor of Arts degree in Communication, students must fulfill the requirements for the major **and** meet all of the University’s other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
6. Policies and Criteria for COM 499 Directed Studies (To Be Arranged). In order to support students in meeting their personal and professional goals, the Communication Department offers majors opportunities to pursue their interested through the Directed Studies option.
 - A directed study must be in, or related to, the field of communication.
 - A directed study typically requires the submission of a paper (or papers) totaling a minimum of 16 typed, double-spaced pages.
 - A written 1–2 page proposal must (1) describe the nature of the directed study and the criteria for evaluation, (2) include a summary statement of the study and a list of at least five references to be used for the study, and (3) be approved by the directing faculty member and the department chair **before the registration deadline**.



- Each hour of credit must entail at least four hours per week of intensive study and/or research.
 - In cases that do not explicitly meet the above criteria, the communication faculty will determine whether or not the proposal should be accepted, modified, or rejected.
7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
 8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
 9. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Communication Minor

Requirements (21 Credits):

1. **Core Knowledge and Behaviors Courses (9)**
 - COM 200 Interpersonal Comm (3)
 - COM 251 Public Speaking (3)
 - COM 270 Intro to Theories of Human Com (3)
2. **Culture or Diversity Elective (Choose one course from the following 3 credit courses) (3)**
 - COM 241 Health, Culture and Diversity (3)
 - COM 260 Media and Culture (3)
 - COM 359 Intercultural Communication (3)
3. **An additional 9 credits of COM electives (at least 6 credits must be at the 300- or 400-level). With approval of an advisor, 3 credits may be from a related discipline. (9)**

Computer Science

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- Barbara Meguro, M.A.

Administrative, Professional and Technical

- [Francis Ray Cristobal](#), M.S.

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Computer science is not the science of the computer—it is the science of problem-solving using a computer. If you are a computer science major, you will see this in many forms—the study of algorithms, of machine hardware, of programming languages, operating systems, database design, and more. The career opportunities are equally varied—software engineer, database manager, network administrator, project manager, and many others. The U. S. Bureau of Labor Statistics, part of the U.S. Department of Labor, predicts that for 2006–2016, three of the six occupations that will be among the fastest growing and register the largest numerical growth will be computing related occupations.

Because computers are so pervasive, a computer science degree gives you the opportunity to make an impact in the world of science, business, health care, education, the law, art, entertainment, or almost anything else that interests you. Even if you are not a computer science major, taking computer science courses will improve your logical thinking and problem solving skills.

Mission

The mission of the Computer Science Department is to:

- Educate computer science majors in a rigorous B.S. degree program so that graduates are prepared to enter high-quality technical professional positions or go on to graduate programs
- Provide computer education that serves the needs of various student components of the University

Goals for Student Learning in the Major

The Bachelor of Science degree in Computer Science is designed to prepare students for success as computer science professionals. Students graduating from this program should be able to apply their knowledge to a specific design problem, including detailing the specifications, analyzing the problem, and providing a design and implementation that functions as desired, while meeting criteria for performance, reliability, maintainability, and cost. A broad background in the humanities and social sciences, together with a course emphasizing professional ethics, provides students a basis for understanding the societal implications of work performed in their chosen profession.

Students finishing this program should also be prepared for graduate studies in computer science.

Special Features of the Computer Science Program

Computer Science at UH Hilo offers you small class sizes, very available faculty who take a great interest in student success, opportunities for team experiences, and a strong sense of community among the upper-division students. Students in this program generally score above the national average on the Major Field Achievement Test in Computer Science, and graduates are employed by major companies in Hawai'i and on the mainland.

The year-long software engineering sequence, CS 460-461 Software Engineering I (3), Software Engineering II (3), provides a project-based capstone experience that draws on the knowledge and skills made available from previous courses and emphasizes the teamwork needed to solve real-world problems.

The Department also offers a number of courses designed for non-computer-science majors: CS 100 Prin Of Computer Sci (3), CS 101 Digital Tools for Info World (3), CS 102 MS Office Tools for Math & Sci



(3)/MATH 111 MS Office Tools for Math & Sci (3), CS 130 Beg Graphics, Game Programg (3), CS 135 Animation Programming (3), CS 137 Digital Media with Flash (3), CS 200-201 Web Technology I (3), Web Technology II (3), and CS 300 Web Site Management (3). These courses are heavily laboratory-oriented, giving students considerable hands-on experience. In order to assist students in mastering the technologies they encounter in these courses, the Department has developed a number of learning aids, including specialized laboratory manuals, specialized software, audio-visual tutorial files, and carefully structured laboratory exercises.

The UH Hilo Computer Science Department occupies three labs, two classrooms, a network administrative office, and several nearby faculty offices. All laboratory and office workstations are part of a local area network and also have high-speed Internet connections. All workstations are set up with connections to both the department's Windows servers and Linux servers, as instructional and research needs require.

Curricula

- [B.S. in Computer Science Requirements](#)
- [Computer Science Minor](#)
- [Computer Application Development Specialization Certificate](#)
- [Database Management Certificate](#)
- [Computer Science \(CS\) Courses](#)
- [Pre-Engineering Program](#)

B.S. in Computer Science Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (76 credits)

1. **Related Requirements for the Major (21):**
 - MATH 205 Calculus I (4)
 - MATH 206 Calculus II (4)
 - MATH 311 Intro Linear Algebra (3)
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
 - PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
2. **Computer Science Required Core Courses (43):**
 - CS 141 Discrete Math for Comp Sci I (3)
 - CS 150 Intro To Computer Science I (3)
 - CS 151 Intro to Computer Sci II (3)
 - CS 241 Discrete Math for Comp Sci II (3)
 - CS 266 Comp Org & Assembly Lang (3)
 - CS 321 Data Structures (3)
 - CS 407 Intro To Numerical Analysis I (3)
 - CS 410 Elemts Computer Architec (3)

- CS 420 Database Internals (3)
- CS 430 Operating Systems (3)
- CS 450 Org Of Programming Lang (3)
- CS 460 Software Engineering I (3)
- CS 461 Software Engineering II (3)
- CS 470 Theory Of Computing (3)
- CS 495 CS Professional Seminar (1)

3. **Four Computer Science Required Elective Courses (12)**

- **One course** from the following (3):
 - CS 340 Graphical User Interfaces (3)
 - CS 350 Systems Programming (3)
- **Two courses** from the following (6):
 - CS 421 Database Systems Design (3)
 - CS 431 Networks & Data Commun (3)
 - CS 440 Artificial Intelligence (3)
 - CS 451 Compiler Theory (3)
- **One** other 400-level [CS course](#) not previously taken (3)

Total Semester Hours Required for the B.S. in Computer Science

120 credits required.

Notes

1. A minimum of a 2.0 GPA is required.
2. A grade of "C" or better in each CS course required for the degree and in MATH 311 Intro Linear Algebra (3).
3. 45 credits in courses at the 300- or 400-level are required.
4. To earn a Bachelor of Science degree in Computer Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students should always check course prerequisites and the frequency with which courses are offered.
6. To ensure progress toward degree completion, **students are strongly encouraged to meet with an advisor each semester before registering** and to use the helpful planning aids provided by the Department at cs.uhh.hawaii.edu.
7. A total of three writing intensive courses are required for the major. Students are encouraged to take a writing intensive course from the English department.

Computer Science Minor

Students pursuing non-Computer Science degrees may minor in Computer Science by completing the following requirements with a grade of "C" or better in each course.

Requirements (21 credits):

- CS 141 Discrete Math for Comp Sci I (3)
- CS 150 Intro To Computer Science I (3)
- CS 151 Intro to Computer Sci II (3)
- CS 241 Discrete Math for Comp Sci II (3)
- CS 321 Data Structures (3)
- And **two** 400-level [CS](#) electives for a total of 6 credits.

Computer Application Development Specialization Certificate

The Certificate in Computer Application Development Specialization allows students to learn applied technical skills that are directly



applicable in the 21st century workplace.

Requirements: 21 credits from the following courses with a minimum of one course each from Blocks A, B, C, and D

- **Block A:**
 - CS 100 Prin Of Computer Sci (3) **or** CS 101 Digital Tools for Info World (3) (**not both**)
 - CS 130 Beg Graphics, Game Programg (3)
 - CS 135 Animation Programming (3)
 - CS 137 Digital Media with Flash (3)
 - CS 138 Intro to Computing with Robots (3)
 - CS 140 Multimedia Programming (3)
 - CS 200 Web Technology I (3)
- **Block B:**
 - CS 150 Intro To Computer Science I (3)
 - CS 151 Intro to Computer Sci II (3)
 - CS 201 Web Technology II (3)
- **Block C:**
 - CS 205 PC Hardware (3)
 - CS 300 Web Site Management (3)
- **Block D:**
 - CS 394 Special Topics in Subject Matter (To Be Arranged)

Notes:

1. Students must obtain a grade of "C" or better in each required course in order to be awarded the certificate.
2. Students in the BS program in Computer Science are not eligible to pursue this certificate. Students who wish to have a minor in computer science are not eligible to pursue this certificate.

Database Management Certificate

The Certificate in Database Management is intended to give students a thorough technical foundation in the theory, design, implementation and application of databases.

Requirements (25 credits):

- MATH 205 Calculus I (4) ¹
- CS 141 Discrete Math for Comp Sci I (3)
- CS 150 Intro To Computer Science I (3) ¹
- CS 151 Intro to Computer Sci II (3) ¹
- CS 321 Data Structures (3)
- CS 420 Database Internals (3)
- CS 421 Database Systems Design (3)
- CS 422 Database Analytics (3)

¹ Students must complete CS 150, CS 151, and MATH 205 or the equivalent with a grade of "C" or better in each course before applying for admission to the certificate program.

Students must obtain a grade of "C" or better in each required course in order to be awarded the certificate.

Pre-Engineering Program

Pre-Engineering Advisor: Shawon S. M. Rahman
Email: srahman@hawaii.edu

Pre-Engineering Advisor: Sevki S. Erdogan
Email: sevki@hawaii.edu

Natural Sciences Division Office:

**Generated: Monday, April 23, 2018,
8:18am**

Office: Life Sciences, Room 2
Tel: (808) 932-7506/7507

Program Website: cse.uhh.hawaii.edu/programs.php

Engineers apply scientific and mathematical principles to design, create, and operate useful devices, structures, or processes in an efficient and economical manner. Many branches of engineering exist within this broad definition. Examples are the following:

- **Electrical Engineering:** Electrical engineers deal with the capture and transmission of energy and information (think of fuel cells, solar panels, hydroelectric plants, satellite transmission, TV, mobile devices).
- **Mechanical Engineering:** Mechanical engineers harness power and mechanical forces to develop all sorts of machines (think of supersonic jets, automobiles, robots, and even artificial organs). They also design and build heating and cooling systems, manufacturing facilities, and machine tools.
- **Civil Engineering:** Civil engineers design and supervise construction of visible infrastructure items (think of bridges, highways, airports, skyscrapers, or waste-water treatment facilities).
- **Systems Engineering:** Systems engineers help integrate many different components of a project to see that they work together smoothly and still meet performance, scheduling, and cost goals.

Engineers are employed in every state and city and by every major industry. Engineering graduates command among the highest starting salaries of all college graduates. The Bureau of Labor Statistics, part of the U.S. Department of Labor, predicts that by the year 2016 the United States will need nearly 400,000 more engineers than we have today. UH Hilo Pre-Engineering gives a solid background in the mathematics, physics, and chemistry needed for any engineering degree.

The Pre-Engineering program at UH Hilo is not a degree program. It is a suggested course of study to prepare students to transfer to a four-year accredited engineering program in Civil, Electrical, or Mechanical engineering.

Year 1 Suggested Schedule

1. **Fall Semester I (14 credits)**
 - ENG 100 Composition I (3)
 - CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
 - COM 251 Public Speaking (3)
 - MATH 205 Calculus I (4)
2. **Spring Semester I (15 credits)**
 - CS 150 Intro To Computer Science I (3)
 - CHEM 162 General Chemistry II (3)
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
 - MATH 206 Calculus II (4)

Year 2 Suggested Schedule

1. **Fall Semester II (17 credits)**
 - MATH 231 Calculus III (3)
 - PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
 - BIOL 171 Introductory Biology I (3)
 - Humanities or Social Sciences Elective (3)
 - Elective (3)
2. **Spring Semester II (15 credits)**
 - MATH 232 Calculus IV (3)
 - One course from:



- ECON 100 Intro To Economics (3)
- ECON 130 Intro To Microeconomics (3)
- ECON 131 Intro To Macroeconomics (3)
- Humanities or Social Science Elective (3)
- Elective (3)
- Elective (3)

Engineering related Elective courses are may be offered at UH Hilo on a rotating basis, students should consult with the Pre-Engineering advisor to select elective courses that meet their educational goals.

Engineering related elective courses:

- CE 270 Applied Mechanics I (3)
- CE 271 Applied Mechanics II (3)
- EE 211 Basic Circuit Analysis (3)

Education- School of Education

Department Chair: Diane Barrett, Ph.D.

Email: barrett9@hawaii.edu

Office: University Classroom Building (UCB), Room 313

Tel: (808) 932-7102

Website: hilo.hawaii.edu/depts/education/

Office Assistant: Madeline Sehna

Professor Emeritus: * Jan Zulich, Ph.D.

Professors:

- Diane Barrett, Ph.D.
- Michele Ebersole, Ph.D.
- Janet Ray, Ed.D.

Assistant Professors:

- Tobias Irish, Ph.D.
- Margary Martin, Ph.D.

Instructor-Field Experience Coordinator:

- Colby McNaughton, M.S.

The UH Hilo School of Education provides pre-service and in-service teachers with high quality, integrated, inquiry-and field-based professional development, serves as a resource to area educators who are meeting the challenges of teaching in a culturally rich, technologically advanced society, and conducts as well as guides action research to expand knowledge of teaching and learning.

The School of Education offers:

1. An 18-credit undergraduate [Certificate in Educational Studies](#), which does not lead to teacher licensure, but provides foundational coursework to those who are interested in pursuing education-related careers.
2. A 36-credit [Master of Arts in Teaching Program \(MAT\)](#) campus-based (Elementary and Secondary) format which leads to initial licensure in the State of Hawaii.
3. A 30-credit [Master of Education Program \(M.Ed.\)](#) primarily distance based format for the professional development of in-service teachers.

Mission

The UH Hilo School of Education is dedicated to the holistic development of transformational educators who are committed to equity, empowerment, and a critical understanding of our world. The School envisions its future as the heart of a learning community of caring, ethical, and creative people.

Curricula

- [Educational Studies Certificate](#)
- [Pre-Teacher Education Sequence for MAT Admission](#)
- [Education \(ED\) Courses](#)

Pre-Teacher Education Sequence for MAT Admission

The Pre-MAT sequence is the first step in completing the requirements for admission into the MAT Program. Students that successfully complete this phase will be able to apply to the MAT Program.

The Pre-MAT Program Requirements and Course Information

Students who consider seeking licensure should ideally begin preparation during their undergraduate program of study. Contact the School of Education at 932-7102 to make an appointment for advising. The following information is provided for students interested in completing the Pre-MAT requirements.

1. **Content Preparation Requirements for all elementary Pre-MAT students (9)**
 - ED 341 Literacy Dev in Elem School (4) ¹
 - ED 343 Math for Elem School Teachers (3) ¹
 - ED 347 Intgr Sci/Soc Stud Elem School (3) ¹
2. **Content Preparation Electives for elementary Pre-MAT students** (optional courses, not required)
 - ED 346 Teaching Children's Literature (3)
 - DNCE 419 Dance In Education (3)
 - MUS 419 Music for Elem Teachers (3)
3. **Content Preparation Requirements for secondary Pre-MAT students seeking Social Studies license: (12)**
 - Choose **one** US History course from the following (3):
 - HIST 380 United States: 1620-1789 (3)
 - HIST 381 United States: 1790-1865 (3)
 - HIST 382 United States: 1866-1929 (3)
 - HIST 383 United States: 1930 - 1980 (3)
 - Take **both** World History courses in the following sequence (6):
 - HIST 151 World History to 1500 (3)
 - HIST 152 World History since 1500 (3)
 - Choose **one** Hawai'i course from the following (3):
 - ANTH 386 Hawaiian Culture Before 1819 (3)
 - ANTH 387 Modern Hawn Cult 1819-Present (3)
 - GEOG 332 Geog Of Hawaiian Islands (3)
 - HIST 284 History of Hawaii (3)
 - HIST 332 Hawaiian Kingdom (3)
 - HIST 333 Twentieth Century Hawaii (3)
4. **Content Preparation Requirements for secondary Pre-MAT students who are Non-English majors seeking English license (18)**
 - Pre-Survey Requirements. (9)
 - ENG 200A Lit Genres: Short Story/Novel (3) **or** ENG 200B



Intro to Lit Genres: Drama (3) **or** ENG 200C Intro to Lit Genres: Poetry (3) **or** ENG 200D Intro Lit Genres: Popular Fict (3) **or** ENG 200E Lit Genres: Myth/Folklore (3) **or** ENG 200F Intro to Lit Genres: Autobiogr (3)

- One additional 200-level writing course
- ENG 300 Intro to Literary Studies (3)

○ Choose **one sequence** from the literature survey courses below (6):

- ENG 304-305 Survey of British Lit I (3), Survey of British Lit II (3) **or** ENG 351-352 Amer Lit: to the Civil War (3), Amer Lit: Civil War-Pres (3)

○ Choose **one 300-level course or one course from the following** (3):

- ENG 324 Modern English Grammar & Usage (3)
- ENG 482 Teaching Composition (3)
- ENG 492 Teaching Literature (3)

- ED 341 Literacy Dev in Elem School (4)
- ED 343 Math for Elem School Teachers (3)
- ED 346 Teaching Children's Literature (3)
- ED 347 Intgr Sci/Soc Stud Elem School (3)
- ED 350 Developmntl Concppts Of Learnng (3)
- ED 358 Intro to Adol Writing in Disc (3)
- ED x94 Special Topics in Subject Matter (To Be Arranged)
- ED x99 Directed Studies (To Be Arranged)

○ **Additional Electives: (6 credits)**, choose **up to two courses** from the following:

- BIOL 442 Comm. Science in K-12 Settings (2)
- DNCE 419 Dance In Education (3)
- DRAM 419 Drama in Education (3)
- LING 344 Children And Language (3)
- ENG 345 Children & Literature (3)
- ENG 482 Teaching Composition (3)
- ENG 484 ESL Materials & Methods (3)
- ENG 492 Teaching Literature (3)
- KES 201 School Health Problems (2)
- KES 233 Physical Education: Elementary (3)
- KES 443 Adapted Physical Education (3)
- LING 351 Method Foreign Lang Tchng (3)
- MARE 434 Teaching Marine Science (3)
- MUS 419 Music for Elem Teachers (3)
- NSCI 476 Communicating Science (3)
- PHIL 370 American Philosophy (3)
- SOC 352 Sociology Of Education (3)

1. Note: Each of the above courses must be passed with a grade of "C" or better. Content preparation courses, **in combination**, must be passed with a 2.75 GPA or better.

Educational Studies Certificate

Program Chair: Diane Barrett, Ph.D.

Office: University Classroom Building (UCB), Room 319

Website: hilo.hawaii.edu/depts/education/

The undergraduate Educational Studies certificate is intended to provide students with a basic understanding of the methodologies, theories, tools, and issues that shape the field of education. The core courses in this certificate program provide students with background in educational foundations and developmental psychology. The elective courses allow students to select courses from a variety of educational content areas.

Students who graduate with a certificate in Educational Studies will be prepared for a variety of education-related positions, such as coaches and educational assistants. **The certificate does not culminate in eligibility for a teaching license.**

Students pursuing this certificate will complete 3 credit hours (1 course) of core coursework in addition to earning 15 credit hours of electives, of which a minimum of 9 credit hours must be from the School of Education. Students must receive a grade of "C" or better in all courses applied to the certificate program.

Requirements (18 credits):

1. Required Core Courses (3 credits)

Complete a core course for a total of 3 credit hours.

Choose **one** course from the following:

- ED 310 Foundations of Education (3)
- ED 350 Developmntl Concppts Of Learnng (3)

2. Additional Elective Courses (15 credits), a minimum of 9 credits (3 courses) must be *Education Courses*.¹

- **School of Education Courses (9 credits)**, choose **three courses** from the following:
 - ED 210 Introduction to Teaching (3)
 - ED 243 Intro to Math for Elem Tch (3)
 - ED 310 Foundations of Education (3)
 - ED 314 Educational Technology (3)

¹ The list of elective courses is updated each year; therefore students enrolled within this certificate program should regularly consult with the advisor of the School of Education. The electives are offered by the School of Education and other academic departments as well. Therefore, students may take only Education courses or may combine Education courses with other discipline courses to complete program electives.

English

Department Chair: Kirsten Mollegaard, Ph.D.

Email: mollegaa@hawaii.edu

Humanities Division Office:

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

Website: hilo.hawaii.edu/depts/english/

Professor Emeritus:

- Kenith L Simmons, Ph.D.

Professors:

- Seri Luangphinit, Ph.D.
- Mark Panek, Ph.D.

Associate Professors:

- Kirsten Mollegaard, Ph.D.
- Jennifer Wheat, Ph.D.

Instructors:

- Marianne Conley-Ramsay, M.A.
- Lauri Sagle, M.A.



- [Susan Wackerbarth](#), M.A., M.F.A.

Mission

The mission of the undergraduate degree program in English is to offer a well-rounded, culturally balanced approach to English Studies through introductory and specialized courses in composition, literature, film, and creative writing. Our program reflects the diversity of our student population, our institutional values as expressed the UH Hilo Strategic Plan, and our location in the Pacific. Our curriculum aims at developing students' critical thinking and writing, strong communication skills, and cultural awareness through the study of literature, composition, visual narrative, and language.

In addition to foundational topics in British and American literature, the UH Hilo program offers a range of courses on specific topics such as the literature of Hawai'i, mythology and folklore, film, gender studies, cultural studies, ethnic studies, creative writing, play writing, and comics and graphic novels.

Student Learning Outcomes

Note: ENG 100 Composition I (3) or ENG 100T Composition with Tutorial (3) or ENG 100H Honors Expository Writing (3) or ESL 100 Composition/Nonnative Speakers (3) or ESL 100T Composition/Non-nativeTutorial (3) is required for all other English courses. Any additional prerequisites for courses are indicated as needed.

For English 100/100T/100H:

Students who successfully complete the course will:

1. Compose a thesis-driven essay using a process approach including,
 - Generating ideas (e.g. mapping, brainstorming, outlines, etc.)
 - Multiple drafts
 - Incorporating feedback at all stages in writing
 - Rewriting
 - Proofreading
2. Identify and compose writing for different purposes and audiences;
3. Analyze and evaluate their own writing;
4. Identify appropriate information needed for their writing assignments;
5. Evaluate sources and information for reliability, accuracy, and bias;
6. Recognize the difference between APA and MLA conventions of documentation;
7. Incorporate multiple sources within an original essay using an appropriate academic convention of documentation;
8. Demonstrate control over syntax and mechanics in their writing.

For all English courses above the 100 level:

Written Communication

Students will

- develop original research projects and/or original creative work that communicates ideas/arguments effectively and persuasively;
- integrate complex ideas and theories from multiple sources in their writing;
- analyze various types of texts (including literature, non-fiction, film, and visual media) using appropriate techniques, such as paraphrase, synthesis, and comparison/contrast;
- demonstrate an understanding of writing as a process that requires revision, editing, and compliance with writing conventions;
- write college-level prose and use appropriate grammar;

- demonstrate proper citation styles for the humanities (MLA) in their writing.

Oral Communication

Students will

- communicate and argue clearly and effectively in various settings, including small group discussions, oral presentations, readings in class, and in symposiums or conferences.

Quantitative Reasoning

Students will

- demonstrate competence in written analysis of numerical and quantitative information.

Critical Thinking

Students will

- analyze visual and written texts using critical literary perspectives;
- apply and/or integrate a range of analytical methods and theories to the study of literary texts;
- evaluate, construct, and situate argumentative literary analyses in relevant historical, cultural, economic, social, and gendered contexts;
- investigate and question assumptions about literary conventions, genres, and cultural functions of written and visual texts.

Information Literacy

Students will

- demonstrate competence in information technology and digital literacy (i.e. formatting in Microsoft Word);
- critically examine and utilize online as well as textual materials in their assignments;
- identify, analyze, and present appropriate data from oral sources (e.g. interviews), visual media (e.g. film or visual arts), and/or various types of print and digital literature (fiction, non-fiction, and graphic texts).

For more information, please visit the [English Department's website](#).

Curricula

- [B.A. in English Requirements](#)
- [English Minor](#)
- [Teaching English as a Second Language \(TESOL\) Certificate](#)
- [English \(ENG\) Courses](#)

B.A. in English Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as



well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (36 credits)

Please note any course pre-requisites

1. **Core Requirements (18 credits)**
 - ENG 200 Intro to Literary Genres (3) (One of A-G)
 - ENG 2xx (3) (Excluding ENG 209 and ENG 225)
 - ENG 300 Intro to Literary Studies (3)
 - ENG 323 The Literature of Hawai'i (3)
 - One of the Following Courses:
 - ENG 304 Survey of British Lit I (3)
 - ENG 305 Survey of British Lit II (3)
 - ENG 461 Shakespeare (3)
 - One of the Following Courses:
 - ENG 351 Amer Lit: to the Civil War (3)
 - ENG 352 Amer Lit: Civil War-Pres (3)
 - ENG 419 Adv Topics in American Lit (3)
2. **English Electives (18 credits)**
 - Choose **6** additional [ENG courses](#) at the 300- or 400-level.

Total Semester Hours Required for the B.A. in English

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students must earn a grade of "C" or higher in all courses required for the major.
3. To earn a Bachelor of Arts degree in English, students must fulfill the requirements both of the major and of the University's General Education program. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

English Minor

The English minor emphasizes critical thinking, reading, and writing skills. It is a meaningful supplement for non-English major students who aim for careers in law, teaching, social sciences, and natural sciences. The requirements for a minor in English are five courses at the 300-400 level.

Requirements (15 credits):

- **Five ENG courses** at the 300- or 400-level. (15)

Creative Writing Certificate

Program Contact: [Susan Wackerbarth, M.A., M.F.A.](#)

Email: wackerba@hawaii.edu

Mission

The mission of the Creative Writing Certificate program is to give students a solid foundation in creative writing forms, techniques, and professional opportunities. Students will showcase their ability to write engagingly in their chosen genre(s) by producing a collection of polished, professional creative work.

Student Learning Outcomes

Students who successfully complete the certificate program will be able to:

- Select, revise and polish a collection of creative work in one or several genres: short stories, poetry, playwriting, or non-fiction (biography, memoir—essay collection or longer piece).
- Review other student-writers' work and give detailed, meaningful feedback.
- Plan and carry out a short creative writing teaching practicum (on or off-campus).
- Prepare and deliver a public reading of creative work.
- Complete, design, and present a polished collection of creative work (chapbook).
- Research appropriate publications and submit creative work.

Curriculum

- **Core (6 Credits)**
 - ENG 286A Intro to Fiction Writing (3) **OR** ENG 286B Intro to Poetry Writing (3)
 - ENG 324 Modern English Grammar & Usage (3)
- **Electives (9 Credits)**
 - ENG 318 Playwriting (3)
 - ENG 431 Fiction Writing (3)
 - ENG 432 Non-Fiction Writing (3)
 - ENG 433 Poetry Writing (3)
 - Other upper division creative writing courses as they are offered
For courses repeatable for credit, all credits earned may count toward the 9-credit requirement.
- **Capstone (3 Credits)**
 - ENG 434 Portfolio Seminar (3)

Notes

1. Students must earn a grade of "B" or higher in all courses required for the certificate.

Teaching English to Speakers of Other Languages (TESOL) Certificate

Contact: [Marianne Conley-Ramsay](#)

Email: bela@hawaii.edu

Mission

The mission of the Teaching English to Speakers of Other Languages (TESOL) Certificate Program is to provide students a theoretical



foundation and practical tools for teaching English as a second/foreign language.

Student Learning Outcomes

Students who successfully complete the certificate program will:

1. Have gained an overview of Second Language Acquisition Theory and how it relates to current practices in teaching ESL/EFL
2. Have learned how to create formal lesson plans
3. Have learned to create lessons in English as a second language (Reading, Writing, Listening, Speaking and Grammar)
4. Have gained some experience teaching ESL students
5. Have gained awareness of cultural differences
6. Be able to modify lessons for varying age groups and levels of English proficiency
7. Be prepared for possible interview scenarios

Curriculum:

Requirements (18 credits):

- LING 102 Introduction to Linguistics (3) ¹
- LING 221 Intro to Language (3) ¹ OR LING 331 Lang in Culture & Society (3)
- ENG 324 Modern English Grammar & Usage (3)
- ENG 350 Second Lang Acquisition Theory (3)
- ENG 422 ESL Teaching Practicum (3)
- ENG 484 ESL Materials & Methods (3)

¹ Prospective candidates should note that LING 102 and LING 221 are prerequisites for several of these courses and ENG/ESL 100 Composition I (3) is a prerequisite for all English classes.

Notes:

1. Students must earn a grade of "C" or higher in all courses required for the certificate.

Environmental Science

Program Chairs:

- Jonathan Price, Ph.D., jpprice@hawaii.edu
- Kathryn Besio, Ph.D., besio@hawaii.edu

Website: hilo.hawaii.edu/depts/geography/

Mission

The mission of the interdisciplinary Environmental Science BS Program is as follows:

- to promote a multidisciplinary analysis of environmental issues
- to enhance students' awareness of the complexity and seriousness of regional and global environmental problems
- to capitalize on UH Hilo's unparalleled natural and cultural environment to foster an understanding vital for sustainability of natural systems, especially island ecosystems

Environmental Studies/Science is an overlap of many academic fields, such as biology, geology, chemistry, marine science, geography, anthropology, agriculture, political science, economics, and sociology. This degree provides an innovative multidisciplinary approach for

undergraduate students interested in a broad span of environmental topics. At the same time, it provides a strong foundation in major concepts in a variety of fields. A certificate in Environmental Studies is also offered.

Program Goals

- To educate students to become environmental professionals
- To equip students with the tools to express themselves within both the scientific and larger society
- To expose students to methods and techniques used by natural and social sciences to identify, analyze, and interpret environmental issues
- To foster interdisciplinary approaches to environmental problem solving

The curriculum is designed to stimulate students' thinking about interdisciplinary connections on contemporary environmental issues. Students will be encouraged to view themselves as major participants and to think critically about their own lives in the context of earth systems and environmental issues.

Curricula

- [B.S. in Environmental Science Requirements](#)
- [Environment Studies Certificate](#)
- [Environmental Studies/Science \(ENSC\) Courses](#)

B.S. in Environmental Science Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (60-64 credits)

1. Core Courses (34)

- BIOL 171 Introductory Biology I (3) or BIOL 172 Introductory Biology II (3)
- BIOL 281 General Ecology (3)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- ENG 287 Introduction to Rhetoric (3)
- ENSC 100 Intro to Environmental Science (3) or GEOG 101 Geog & Nat Environ (3)



- ENSC 495 Senior Seminar Environ Science (3)
- GEOG 201 Interp Geog Data (3)
- MATH 205-206 Calculus I (4), Calculus II (4)
- 2. **Quantitative Methods: Choose one course from the three-credit courses listed below: (3)**
 - BIOL 280 Biostatistics (3)
 - GEOG 280 Introduction to Geostatistics (3)
 - MARE 250 Statistical Apps in Marine Sci (3)
 - MATH 121 Intro Stats & Prob (3)
- 3. **Human and the Environment: Choose two courses from the three-credit courses listed below: (6)**
 - ANTH 315 Ecological Anthropology (3)
 - ECON 380 Natural Resource Env Eco (3)
 - GEOG 312 Food and Societies (3)
 - GEOG 326 Natural Resources (3)
 - GEOG 340 Intro to Land Use Planning (3)
 - GEOG 436 Environ Politics in Pacific (3)
 - GEOG 440 Community Planning (3)
 - PHIL 412 Philosophy of Nature (3)
 - POLS 335 Envir Politics & Policy (3)
- 4. **Environmental Science: Choose three courses from one concentration listed below: (9-11)**
 - *Biological Concentration*
 - BIOL/GEOG 309 Biogeography (3)
 - BIOL 375 Biology of Microorganisms (3)
 - BIOL 381 Conservation Biology (3)
 - BIOL 481-481L Trop Island Ecology & Evol (3), Trop Island Ecology & Evol Lab (2)
 - ENSC 457 Vegetation of the Hawaiian Isl (3)
 - GEOG 409 Principles of Landscape Ecology (3)
 - SOIL 304 Tropical Soils (3)
 - *Physical Science Concentration*
 - CHEM 141 Surv Organ Chem & Biochem (3)
 - CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
 - CHEM 360 Environmental Chemistry (3)
 - GEOG 300 Climatology (3)
 - GEOG 301 Global Warming/Climate Change (3)
 - GEOG 319 Nat Hazards/Disasters (3)
 - GEOL 300 Adv Environmental Earth Sci (3)
 - GEOL 342 Earth Surface Processes (3)
 - GEOL 360 Surface Water (3)
 - GEOL 460 Groundwater (3)
 - MARE 282 Global Change (3)
 - SOIL 304 Tropical Soils (3)
- 5. **Advanced Environmental Techniques: Choose two courses: (6)**
 - ANTH 481 Archaeometry (3)
 - FOR 202 Forestry & Natural Resources (3)
 - ENSC 385 Fld Meth in Geog & Environ Sci (3)
 - ENSC 441 Environmentl Impact Assessment (3)
 - GEOG 470 Remote Sensing/Air Photo (3)
 - GEOG 480 Geog Info Sys & Visualization (3)
 - GEOG 481 Advance Geo-Spatial Techniques (3)
 - GEOL 445 GIS for Geology (3)
 - GEOL 450 Geological Remote Sensing (3)
 - GEOG 382 Qualitative Research (3)
 - GEOG 488 Advanced Geostatistics (3)

Total Semester Hours Required for the B.S. in Environmental Science

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 29 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Science degree in Environmental Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Gender and Women's Studies

Chair: Celia T. Bardwell-Jones, Ph.D.

Email: celiab@hawaii.edu

Advisor: Amy C. Gregg, M.Div.

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Program Faculty:

- Celia Bardwell-Jones, Ph.D., Philosophy
- Catherine Becker, Ph.D., Communications
- Kathryn Besio, Ph.D., Geography
- Marilyn Brown, Ph.D., Sociology
- Nancy Elmer, M.A., Geography
- Yoshiko Fukushima, Ph.D., Performance Studies, Languages
- Amy C. Gregg, M.Div., Women's Studies
- Brooke Hansen, Ph.D., Anthropology
- Lindy Hern, Ph.D., Sociology
- Kerri A. Inglis, Ph.D., History
- Marina Karides, Ph.D., Sociology
- Sunyoung Kim, Ph.D., Psychology
- Christopher Lauer, Ph.D., Philosophy
- Seri Luangphinit, Ph.D., English
- Sarah Marusek, Ph.D., Political Science
- Justina Mattos, Ph.D. Communication
- Douglas Mikkelson, Ph.D., History
- Faith Mishina, M.A., Languages
- Kirsten Møllegaard, Ph.D, English
- Lynn Morrison, Ph.D., Anthropology
- Lisa K. Muehlstein, Ph.D., Marine Science
- Yumiko Ohara, Ph.D., Languages
- Alton M. Okinaka, Ph.D., Sociology
- Lauri Sagle, M.A., English
- Alicia Takaoka, M.A., English
- Jennifer Wheat, Ph.D., English
- Lynne Wolforth, Ph. D., Anthropology
- Jing Yin, Ph.D., Communication
- Katherine E. Young, Ph.D., Political Science



The Gender and Women's Studies Program brings together faculty and students from a variety of disciplines to investigate the status and position of women as participants in past and contemporary societies. Students will explore gender-based issues from an historical, literary, and multi-cultural perspective.

Mission

The Gender and Women's Studies Program at UH-Hilo promotes an interdisciplinary understanding of how race, class, sexuality, nation and other elements of diversity intersect with the study of women and categories of gender. Our mission is to cultivate active leadership skills and a sense of responsibility grounded in a critical social justice approach to individual and collective transformation in Hawai'i and beyond. In the UH Hilo Gender and Women's Studies program, empowerment of students has both inward and outward goals. Inwardly, Gender and Women's Studies enables students to extricate themselves in a constructive and intelligent manner from reductive structures or conflicts. This empowerment enhances self-esteem, creating a strong and positive attitude that encourages further education. Outwardly, the student of Gender and Women's Studies learns to challenge institutional barriers, demonstrates leadership in the workplace, and acquires an increased awareness of working with others of different cultures and genders. Our curriculum advances both of these goals to inspire students as agents of change.

Student Learning Outcomes

Students completing the Gender and Women's Studies major or minor will have a firm understanding of the role of gender and sexual identity in a variety of areas including history, health, geography, culture, politics, literature, and language. Furthermore, the major or minor will enhance preparation for a number of professional and post-graduate areas including government, law, industrial relations, social services, politics, medicine, and education.

1. Identify and analyze the intersections among gender, sexuality, and other socially meaningful constructions such as race, class, religion, nation, and ethnicity.
2. Acquire critical theoretical perspectives and apply a range of methods to the study of history, society, media, science, culture, and other human endeavors.
3. Apply feminist and queer inquiries to the construction of gender, representations of sexuality and sexual identity, and the differential power structures that create, replicate, and contest these social categories.
4. Locate and examine one's own gender roles and question assumptions (including heteronormativity) that impact everyday life and relationships in order to promote health, advocacy, and social justice.
5. Delineate historical and contemporary aspects of feminism, social justice activism, and women's contributions to culture, politics, and society.
6. Demonstrate clear, logical, and critical thinking about the theory and

practice of gender roles in a global context.

7. Communicate effectively in verbal and written form.

Curriculum

- B.A. in Gender and Women's Studies Requirements
- Gender & Women's Studies Minor
- Gender and Womens Studies (WS) Courses

B.A. in Gender and Women's Studies Requirements

Requirements for the Bachelor of Arts in Gender and Women's Studies

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2014.

Students may choose to graduate under the General Education Basic, Area, and Integrative requirements and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment lasting longer than one semester.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted at <https://hilo.hawaii.edu/academics/gened>

Group 2. Major Requirements and Assigned Credits:

All Courses are listed by their home department's alpha. For example: ENG 202 Literature of Human Rights (3) is also cross-listed as WS 202 Literature of Human Rights (3).

Required Major Courses (39)

Core (12)

- WS 151 Intro Gender & Women's Studies (3)
- ENG 202 Literature of Human Rights (3) or ENG 257 Multicultural Literature (3) or PHIL 180 Love and Sex (3)
- WS 200 Gender Leadership & Soc Just (3)
- WS 495 Women's Studies Seminar (3)

One theory course (3). Choose from:

- PHIL 375 Feminist Philosophy (3)
- POLS 303 Feminist Political Theory (3)
- SOC 377 Feminist Social Theory (3)
- WS 352 Gender and Sexuality (3)

One methods course (3). Choose from:

- ANTH 445 Ethnographic Field Tech (3)
- ANTH 485 Applied Anthropology (3)



- ENG 300 Intro to Literary Studies (3)
- GEOG 382 Qualitative Research (3)
- HIST 300 Historical Methods (3)
- SOC 380 Methods Of Research (3)
- SPAN 369 Lat&Glob Docum&Film: Crit Analy (3)
- WS 391 Intern Gender & Women Studies (3)

Block 1: Diversity and International Perspectives (6). Choose two courses:

- ANTH 320 Cross-Cultural Study Of Women (3)
- ANTH 324 Culture, Sex And Gender (3)
- ENG 200G Intro Graphic Novels & Comics (3)
- ENG 201 Global Cinema (3)
- ENG 205 Hawai'i on Screen (3)
- ENG 323 The Literature of Hawai'i (3)
- ENG 423 Post-Colonial Literature (3)
- ENG 430 Pacific Islands Literature (3)
- ENG 448 Graphic Novels and Comics (3)
- GEOG 305B Themes in Regnl Geog: Mid East (3)
- HIST 360 American Women's History (3)
- HIST 401 Women in Hawaiian History (3)
- HIST 411 Family & Gender in Oceania (3)
- JPST/J PNS 361 Feminism in Japan (3)
- PHIL 304 Ethics and Cultural Diversity (3)
- POLS 327 Law and Identity (3)
- SOC 300 Family in World Perspective (3)
- SOC 320 Social Stratification (3)
- SOC 331 Queer Studies & Contem Society (3)
- SOC 407 Gender Inequality inPopCulture (3)
- WS 357 Women and Religion (3)
- WS 358 Women in Christianity (3)

Block 2: Leadership and Social Change (6). Choose two courses:

- COM 207 Gender and Communication (3)
- GEOG 312 Food and Societies (3)
- GEOG 430 Gender, Place and Environment (3)
- HIST 319 European Women's History (3)
- HIST 378 N. Amer Indig Cultr Survival (3)
- HIST 486 Women in Ancient European Civi (3)
- PHIL 220 Social Ethics (3)
- PHIL 315 Ethical Theory (3)
- PHIL 316 Science, Technology & Values (3)
- PHIL 355 Philosophy of Sport (3)
- PHIL 370 American Philosophy (3)
- POLS 328 Rights (3)
- POLS 332 Politics Of Race & Gender (3)
- SOC 310 Race & Ethnic Relations (3)
- SOC 328 Gender, Crime, and Justice (3)
- SOC 340 Socialization & Identity (3)
- SOC 363 Globalization, Gender, Fashion (3)
- SOC 409 Seminar in Social Movements (3)
- WS 301 Women in Science (3)
- WS 359 Music and Activism (3)

Block 3: Electives. Choose three courses (9):

- ANTH 320 Cross-Cultural Study Of Women (3)
- ANTH 324 Culture, Sex And Gender (3)
- ANTH 485 Applied Anthropology (3)
- COM 207 Gender and Communication (3)
- COM 420 Family Communication (3)
- COM 461 Race and Gender in Media (3)
- ENG 200G Intro Graphic Novels & Comics (3)

- ENG 200E Lit Genres: Myth/Folklore (3)
- ENG 202 Literature of Human Rights (3)
- ENG 204 Intr Race/Gender Film Studies (3)
- ENG 205 Hawai'i on Screen (3)
- ENG 206 Intro to Popular Culture (3)
- ENG 257 Multicultural Literature (3)
- ENG 323 The Literature of Hawai'i (3)
- ENG 355 Women in Modern Lit & Film (3)
- ENG 423 Post-Colonial Literature (3)
- ENG 430 Pacific Islands Literature (3)
- ENG 442 Romantic Literature (3)
- ENG 448 Graphic Novels and Comics (3)
- GEOG 305B Themes in Regnl Geog: Mid East (3)
- GEOG 312 Food and Societies (3)
- GEOG/WS 382 Qualitative Research (3)
- GEOG 430 Gender, Place and Environment (3)
- HIST 319 European Women's History (3)
- HIST 360 American Women's History (3)
- HIST 378 N. Amer Indig Cultr Survival (3)
- HIST 401 Women in Hawaiian History (3)
- HIST 411 Family & Gender in Oceania (3)
- HIST 486 Women in Ancient European Civi (3)
- JPST/J PNS 361 Feminism in Japan (3)
- KES 202 Health Promotion (3)
- LING 356 Language and Gender (3)
- PHIL 180 Love and Sex (3)
- PHIL 304 Ethics and Cultural Diversity (3)
- PHIL 307 Theory of Knowledge (3)
- PHIL 310 Metaphysics (3)
- PHIL 315 Ethical Theory (3)
- PHIL 316 Science, Technology & Values (3)
- PHIL 355 Philosophy of Sport (3)
- PHIL 370 American Philosophy (3)
- PHIL 375 Feminist Philosophy (3)
- POLS 303 Feminist Political Theory (3)
- POLS 327 Law and Identity (3)
- POLS 328 Rights (3)
- POLS 332 Politics Of Race & Gender (3)
- PSY 325 Psychology Of Women (3)
- PSY 385 Women & Health (3)
- SOC 300 Family in World Perspective (3)
- SOC 310 Race & Ethnic Relations (3)
- SOC 320 Social Stratification (3)
- SOC 328 Gender, Crime, and Justice (3)
- SOC 331 Queer Studies & Contem Society (3)
- SOC 340 Socialization & Identity (3)
- SOC 363 Globalization, Gender, Fashion (3)
- SOC 377 Feminist Social Theory (3)
- SOC 407 Gender Inequality inPopCulture (3)
- SOC 408 Island Feminism (3)
- SOC 409 Seminar in Social Movements (3)
- SPAN 368 Gender & Women LatAm Lit/Film (3)
- SPAN 369 Lat&Glob Docum&Film: Crit Analy (3)
- WS 301 Women in Science (3)
- WS 352 Gender and Sexuality (3)
- WS 357 Women and Religion (3)
- WS 358 Women in Christianity (3)
- WS 359 Music and Activism (3)
- WS 391 Intern Gender & Women Studies (3)
- WS x94
- WS x99



Notes on electives:

1. No more than 6 credits of lower level courses
2. No more than 6 credits in a single discipline (exception for courses originating in GWS)
3. A student may not apply courses taken in the core towards courses in the electives.
4. A student may not apply courses taken in the two tracks (Diversity/International Perspectives and Leadership and Social Change) towards courses in the electives.
5. Students should consult with their advisors each semester as applicable courses (not listed in the catalog) are offered from time to time.

Gender & Women's Studies Minor

Requirements (21 credits):

1. **Required courses:**
 - o WS 151 Intro Gender & Women's Studies (3)
 - o WS 495 Women's Studies Seminar (3)
2. **Electives:** 15 additional credits from courses listed in this catalog under "Gender and Women's Studies," with a maximum of six credits from 200-level courses and a maximum of nine credits from the same discipline. Most courses counted toward the Women's Studies Certificate are cross-listed as Women's Studies courses. Each semester, additional appropriate courses are reviewed and listed under Women's Studies in the class schedule. Students also may take up to six credits of discipline-based directed study from a participating WS faculty member.

Geography

Department Chair: Jon Price, Ph.D.

Email: jpprice@hawaii.edu

Social Sciences Division Office:

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Tel: (808) 932-7100

Website: hilo.hawaii.edu/depts/geography/

Professor:

- Kathryn Besio, Ph.D.

Associate Professor:

- Ryan Perroy, Ph.D.
- Jonathan Price, Ph.D.

Geography aims to help people understand *why* things happen *where* they do. Many of the problems and issues facing our world today have geographic dimensions, such as environmental quality, social justice, housing, food production and consumption, global trade and business, and resource management. An education in Geography provides essential skills for problem solving and making sense of an interconnected, complex world.

The study of both natural and human environments is an outstanding feature of Geography. Geography students will acquire a liberal arts education while specializing in one of the subfields of the discipline. Popular subfields are *Physical Geography* (including climatology, biogeography, and geomorphology), *Human Geography* (including cultural geography, economic geography, indigenous geographies,

resource management, and land use planning), and *Geographic Techniques* (including remote sensing, geographic information systems, and cartography). The Department also participates in an interdisciplinary graduate program (M.S.) in Tropical Conservation Biology and Environmental Science.

Hawai'i Island has diverse natural and cultural environments ideal for the study of Geography. Field excursions and associated student research activities 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 contemporary curriculum.

Geography Department graduates have gone on to a wide range of careers, including resource management, community development, cartography and map design, GIS analysis, land use planning, environmental engineering, publishing and editorial work, environmental law, landscape architecture, and teaching at all levels.

Mission

The mission of the interdisciplinary Environmental Studies/Science BA/BS Program is as follows:

- to promote a multidisciplinary analysis of environmental issues;
- to enhance students' awareness of the complexity and seriousness of regional and global environmental problems;
- to capitalize on UH Hilo's unparalleled natural and cultural environment to create knowledge and understanding vital for sustainability of natural systems, especially island ecosystems.

Goals for Student Learning in the Major

The study of Geography helps students understand and analyze:

- The social, cultural and natural processes that make places distinctive
- Globalization and its effects on environmental and cultural change
- The uneven global distribution of wealth, resources and population
- The historical development of the discipline of Geography
- The representation and analysis of geographic data
- How to use geo-spatial tools, technologies, and methods

Contributions to the UH Hilo General Education Program

As an integrative discipline, Geography gives students a comprehensive view of the world and an appreciation of environmental and cultural diversity.

Curricula

- [B.A. in Geography Requirements](#)
- [Geography Minor](#)
- [Planning Certificate](#)
- [Geography \(GEOG\) Courses](#)

B.A. in Geography Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic](#),



Area, and Integrative requirements and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits

Choose one of the following tracks

A. Geography Track (42 Credits)

1. **Core Courses (15)**
 - o ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)
 - o GEOG 101 Geog & Nat Environ (3) **or** ENSC 100 Intro to Environmental Science (3)
 - o GEOG 103 Geog And Contemp Soc (3) **or** GEOG 102 World Regional Geography (3)
 - o GEOG 201 Interp Geog Data (3)
 - o GEOG 280 Introduction to Geostatistics (3)
 - o GEOG 495 Senior Seminar in Geography (3) **or** GEOG 490 Senior Thesis (3)
2. **Physical Geography:** *two courses* from the following list (6)
 - o GEOG 300 Climatology (3)
 - o GEOG 301 Global Warming/Climate Change (3)
 - o GEOG 309 Biogeography (3)
 - o GEOG 319 Nat Hazards/Disasters (3)
 - o GEOG 320 Earth Surface Processes (3)
 - o GEOL 360 Surface Water (3)
 - o GEOG 409 Principles of Landscape Ecology (3)
 - o GEOL 460 Groundwater (3)
 - o ENSC/BIOI 457 Vegetation of the Hawaiian Isl (3)
 - o GEOG 494 Special Topics in Subject Matter (To Be Arranged)
3. **GIS and Spatial Techniques:** *two courses* from the following list (6)
 - o CS 150 Intro To Computer Science I (3)
 - o GEOG 385 Fld Meth in Geog & Environ Sci (3)
 - o GEOG 470 Remote Sensing/Air Photo (3)
 - o GEOG 480 Geog Info Sys & Visualization (3)
 - o GEOG 481 Advance Geo-Spatial Techniques (3)
 - o GEOG 488 Advanced Geostatistics (3)
 - o GEOG 494 Special Topics in Subject Matter (To Be Arranged)
4. **Human Geography and Planning:** *two courses* from the following list (6)
 - o GEOG 107 Hawaii in the Pacific (3)
 - o GEOG 312 Food and Societies (3)
 - o GEOG 328 Cultural Geography (3)
 - o GEOG 321 Geog Of Economic Activity (3)
 - o GEOG 325 Legal Geography (3)
 - o GEOG 326 Natural Resources (3)
 - o GEOG 329 Development Geographies (3)
 - o GEOG 331 Tourism Geographies (3)
 - o GEOG 332 Geog Of Hawaiian Islands (3)
 - o GEOG 335 Geog Of Oceania (3)
 - o GEOG 340 Intro to Land Use Planning (3)

- o GEOG 382 Qualitative Research (3)
- o GEOG 387 Lit Of The Environment (3)
- o GEOG 430 Gender, Place and Environment (3)
- o GEOG 435 Senior Seminar Pacific Studies (3)
- o GEOG 436 Environ Politics in Pacific (3)
- o GEOG 441 Environmental Impact Assessment (3)
- o GEOG 494 Special Topics in Subject Matter (To Be Arranged)
- o GEOG 496 Planning Internship (3)

5. Area of Specialization (9)

- o Choose **three** additional 300- or 400-level courses from the above areas. Two of those courses must be within the same area of specialization.

B. Environmental Studies Track (51-52 Credits)

1. Core Courses (27)

- o BIOL 171 Introductory Biology I (3) **or** BIOL 172 Introductory Biology II (3)
- o BIOL 281 General Ecology (3)
- o CHEM 151 Elementary Survey of Chemistry (3)
- o ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)
- o ENSC 100 Intro to Environmental Science (3) **or** GEOG 101 Geog & Nat Environ (3)
- o GEOG 102 World Regional Geography (3) **or** GEOG 103 Geog And Contemp Soc (3)
- o GEOG 201 Interp Geog Data (3)
- o ENSC 495 Senior Seminar Environ Science (3)
- o GEOG 326 Natural Resources (3)

2. Quantitative Methods: Choose *one course* from the three-credit courses listed below: (3)

- o BIOL 280 Biostatistics (3)
- o GEOG 280 Introduction to Geostatistics (3)
- o MARE 250 Statistical Apps in Marine Sci (3)
- o MATH 121 Intro Stats & Prob (3)¹

3. Humans and the Environment: Choose *two courses* from the three-credit courses listed below: (6)

- o ANTH 315 Ecological Anthropology (3)
- o ECON 380 Natural Resource Env Eco (3)
- o GEOG 340 Intro to Land Use Planning (3)
- o GEOG 387 Lit Of The Environment (3)
- o GEOG 436 Environ Politics in Pacific (3)
- o GEOG 440 Community Planning (3)
- o PHIL 412 Philosophy of Nature (3)
- o POLS 335 Envir Politics & Policy (3)

4. Environmental Science: Choose *two courses* from the three-credit courses listed below: (6)

- o BIOL/GEOG 309 Biogeography (3)
- o GEOG 319 Nat Hazards/Disasters (3)
- o BIOL 381 Conservation Biology (3)
- o CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- o CHEM 360 Environmental Chemistry (3)
- o GEOG 300 Climatology (3)
- o GEOG 301 Global Warming/Climate Change (3)
- o GEOG 409 Principles of Landscape Ecology (3)
- o GEOL 300 Adv Environmental Earth Sci (3)
- o GEOL 342 Earth Surface Processes (3)
- o GEOL 360 Surface Water (3)
- o GEOL 460 Groundwater (3)
- o MARE 282 Global Change (3)
- o SOIL 304 Tropical Soils (3)

5. Advanced Environmental Techniques: Choose *two courses*: (6)

- o ANTH 481 Archaeometry (3)



- FOR 202 Forestry & Natural Resources (3)
- ENSC 385 Fld Meth in Geog & Environ Sci (3)
- GEOG 382 Qualitative Research (3)
- GEOG 441 Environmentl Impact Assessment (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOG 481 Advance Geo-Spatial Techniques (3)
- GEOG 488 Advanced Geostatistics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- ENSC 441 Environmentl Impact Assessment (3)
- ENSC 457 Vegetation of the Hawaiian Isl (3)

- *Block II: Human Geography*
 - GEOG 312 Food and Societies (3)
 - GEOG 321 Geog Of Economic Activity (3)
 - GEOG 328 Cultural Geography (3)
 - GEOG 329 Development Geographies (3)
 - GEOG 331 Tourism Geographies (3)
 - GEOG 430 Gender, Place and Environment (3)
- *Block III: Analytical Techniques*
 - GEOG 385 Fld Meth in Geog & Environ Sci (3)
 - GEOG 441 Environmentl Impact Assessment (3)
 - GEOG 470 Remote Sensing/Air Photo (3)
 - GEOG 480 Geog Info Sys & Visualization (3)
 - GEOG 481 Advance Geo-Spatial Techniques (3)

¹ MATH 121 Intro Stats & Prob (3) in Group 2 above counts as a Quantitative Reasoning course in Group 1 above.

Total Semester Hours Required for the B.A. in Geography

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Where appropriate, and with the approval of the Geography chairperson, one Special Topics course (GEOG 494 Special Topics in Subject Matter (To Be Arranged)) may be substituted for a course under Blocks I or II.
3. Students in the Geography Track must earn at least 45 credits at the 300- and 400-level.
4. Students in the Environmental Studies Track must earn at least 33 credits at the 300- and 400- level.
5. To earn a Bachelor of Arts degree in Geography, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
6. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
7. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
8. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Geography Minor

Requirements (21 credits):

1. **Required (9):**
 - GEOG 101 Geog & Nat Environ (3)
 - GEOG 103 Geog And Contemp Soc (3)
 - GEOG 201 Interp Geog Data (3)
2. And **four additional courses** (12 credits) in **GEOG** at the 300- or 400-level with at least one course from each of the following three blocks:
 - *Block I: Physical Geography*
 - GEOG 300 Climatology (3)
 - GEOG 309 Biogeography (3)
 - GEOG 319 Nat Hazards/Disasters (3)
 - GEOG 320 Earth Surface Processes (3)
 - GEOG 409 Principles of Landscape Ecology (3)

Environment Studies Certificate

Contact: Jonathan Price
Email: jpprice@hawaii.edu

The 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.

Requirements (24 credits):

- GEOG 101 Geog & Nat Environ (3) **or** ENSC 100 Intro to Environmental Science (3)
- CHEM 151 Elementary Survey of Chemistry (3) **or** CHEM 161 General Chemistry I (3)
- GEOL 111 Understanding the Earth (3)
- MARE 201 Oceanography (3) **or** MARE/BIOL 360 Marine Resources (3)
- ECON 380 Natural Resource Env Eco (3) **or** POLS 335 Envir Politics & Policy (3)
- GEOG 441 Environmentl Impact Assessment (3)
- Choose **one** of the following courses: (3)
 - BIOL 101 General Biology (3)
 - BIOL 171 Introductory Biology I (3)
 - BIOL 172 Introductory Biology II (3)
- Choose **one** of the following courses: (3)
 - SOIL 304 Tropical Soils (3)
 - AG/GEOG 312 Ag Geog/World Food Prob (3)
 - GEOG 326 Natural Resources (3)

Planning Certificate

Contact: Kathryn Besio
Email: besio@hawaii.edu

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 each course.

Requirements (18 credits):

1. **Required Courses. (12)**
 - GEOG 340 Intro to Land Use Planning (3)
 - GEOG 440 Community Planning (3)
 - GEOG 441 Environmentl Impact Assessment (3)
 - GEOG 496 Planning Internship (3)

**2. Additional Electives. (6)**

- **Two** electives approved by the planning advisor at the 300- or 400-level.

The internship normally will be completed in the student's senior year. Up to two courses in the certificate program also may be counted as Geography major electives. For further details on the planning certificate program, contact any member of the Geography faculty.

Geology

Department Chair: Steven P. Lundblad, Ph.D.

Email: slundbla@hawaii.edu

Natural Sciences Division Office:

Office: Life Sciences, Room 2

Tel: (808) 932-7506/7507

Website: hilo.hawaii.edu/~geology/

Professors:

- [Kenneth Hon](#), Ph.D.
- [Steven Lundblad](#), Ph.D.
- [Jené Michaud](#), Ph.D.

Associate Professors:

- [James Anderson](#), Ph.D.

Geology is the study of the earth: its form and composition, the changes it has undergone and the dynamic forces shaping it today. Geologists are interested in what makes volcanoes erupt, what forces produce mountain ranges, where earthquakes occur and how they can be predicted, how glaciers carve out the landscape, and where petroleum and minerals can be located.

The mission of the UH Hilo Geology Department is to provide students with a rigorous, high-quality foundation in geological science. The primary goal is to prepare students for graduate studies, work as professional geologists, or careers in secondary education, planning, or natural resource management. The Geology Department also supports the liberal arts mission of the University by providing general education students with a broader knowledge of their natural environment. Although delivery of quality undergraduate education is the focus of the Department's efforts, the Department also supports and contributes to advancement of scientific knowledge, application of geologic knowledge, and community education and service.

The Geology program exposes students to the theory and application of a wide range of disciplines within the geosciences. The curriculum focuses on the composition, structure, history and dynamics of the Earth. Students will acquire a strong background in the basic sciences as they address geological problems using the tools of chemistry, physics, and mathematics. Hilo's unique natural setting on the slope of an active volcano makes it an ideal place to experience firsthand the more dynamic aspects of geology.

Both laboratory and field activities are important components of the program, and students can expect to develop their descriptive, analytical and interpretive skills. Students are advised that field trips are sometimes conducted outside of class hours.

The study of geology prepares students for careers in environmental science, natural resources, and scientific research on diverse topics

including volcanism and hydrology. Many of the students graduating from the B.S. program go on to pursue graduate degrees.

Goals for Student Learning in the Major

Content

Both the B.S. and B.A. programs in Geology are designed to lead to student mastery of basic concepts and vocabulary in the following areas:

- Plate tectonics
- Origin and classification of rocks and minerals
- Geological time scale and how this relates to major events in the history of Earth and its life
- Geophysical properties of the Earth and crustal deformation
- Processes that shape the surface of the Earth
- Environmental hazards and issues

Skills

Graduates are also expected to:

- Develop skills in observing and recording geologic features and processes.
- Develop competency in the interpretation of earth science data, including both qualitative and quantitative analyses.
- Express earth science concepts in writing.
- Become proficient at:
 - Locating and interpreting scientific literature
 - Giving oral presentations
 - Using computers at a level consistent with current professional practice.

Special Aspects of the Program

The Department's laboratories, classrooms, and support facilities have been designed to house a complete and state-of-the-art geology program. Laboratory facilities include those for rock preparation, mineralogy and petrology, wet chemistry, seismic monitoring, and a geographic information system (GIS) computer laboratory.

Students also have access to instruments and computers used for volcano monitoring through the Center for the Study of Active Volcanoes (CSAV), which is a training and outreach program associated with the Geology Department. CSAV's mission is to provide training and information on volcanic and natural hazards that occur in Hawai'i and worldwide. Instruments available to the Geology program through CSAV include Global Positioning System (GPS) receivers, total field station and EDM instruments, precise leveling instruments, portable seismometers, and gas geochemical instruments.

The Geology Club is an active student organization that provides field experiences and interaction with other individuals with an interest in geology.

Curricula

- [B.A. in Geology Requirements](#)
- [B.S. in Geology Requirements](#)
- [Geology Minor](#)
- [Earth and Space Science Minor](#)
- [Geology \(GEOL\) Courses](#)



B.A. in Geology Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (56-58 credits)

1. GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
2. GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
3. GEOL 212 Earth Materials I: Minerals (4)
4. GEOL 320 Erth Mat II: Igneous/Meta Rock (4)
5. GEOL 495A-495B Seminar (1), Seminar (1)
6. ASTR 180 Princ Of Astron I (3) or MARE 201 Oceanography (3)
7. CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1) ¹
8. MATH 125 Applied Calculus (3) ²
9. PHYS 151-151L College Physics I (3), College Physics I Lab (1) ³
10. **Two courses** from the following list: (6-8)
 - o GEOL 330 Deformation of the Earth (4)
 - o GEOL 340 Sedimentary Processes (4)
 - o GEOL 342 Earth Surface Processes (3)
 - o GEOL 370 Field Methods (3)
11. **Six additional 300- or 400-level GEOL courses**, Up to two of the six courses may be substituted from
 - o GEOG 300 Climatology (3)
 - o GEOG 319 Nat Hazards/Disasters (3)
 - o GEOG 470 Remote Sensing/Air Photo (3)
 - o MARE 360 Marine Resources (3)
 - o MARE 425 Chemical Oceanography (3)
 - o MARE 461 Geological Oceanography (3)
 - o SOIL 304 Tropical Soils (3)

¹ CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1) may substitute for CHEM 151-151L Elementary Survey of Chemistry (3), Elementary Survey of Chem Lab (1).

² MATH 205 Calculus I (4) may substitute for MATH 125 Applied Calculus (3).

³ PHYS 170 Gen Phys I: Mechanics (4) may substitute for PHYS 151 College Physics I (3).

Total Semester Hours Required for the B.A. in

Geology

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. All courses in **Group 2, Major Requirements**, must be completed with a grade of "C" or better.
3. At least 36 credits must be earned at the 300- or 400-level.
4. To earn a Bachelor of Arts degree in Geology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

B.S. in Geology Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (73 credits)

All required Courses in **GEOL in Group 2, Major Requirements**, must be completed with a grade of "C" or better.

1. **Required Courses from Geology**
 - o GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
 - o GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
 - o GEOL 212 Earth Materials I: Minerals (4)
 - o GEOL 320 Erth Mat II: Igneous/Meta Rock (4)
 - o GEOL 330 Deformation of the Earth (4)
 - o GEOL 340 Sedimentary Processes (4)
 - o GEOL 342 Earth Surface Processes (3)
 - o GEOL 370 Field Methods (3)
 - o GEOL 495A-495B Seminar (1), Seminar (1)
 - o And **twelve** additional semester hours in [GEOL courses](#) at the 300- or 400-level. (12)



2. Required Courses from Related Fields

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- ENG 225 Writing for Sci & Technology (3)
- MATH 205 Calculus I (4)
- MATH 206 Calculus II (4)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)

Total Semester Hours Required for the B.S. in Geology

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 32 credits must be earned in courses at the 300- or 400-level. Courses in Group 2 supply 32 of these credits.
3. Students preparing for graduate school should consider taking a summer field course in Geology and possibly MATH 300 Ordinary Diff Equations (3) (Ordinary Differential Equations), CS 150 Intro To Computer Science I (3) (Introduction to Computer Science), or PHYS 260 Computational Physics & Astron (3) (Computational Physics and Astronomy).
4. To earn a Bachelor of Science degree in Geology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Geology Minor

Requirements (20 credits):

1. GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
2. GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
3. And **12 additional credits** of [GEOL courses](#). (At least six of the additional 12 credits must be at the 300- or 400-level.)

Note: Each course must be passed with a grade of "C" or better.

Minor in Earth and Space Science

Requirements (24 credits):

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- ASTR/GEOL 352 Plants and Exoplanets (3)

- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- GEOL 205 Geology Of Hawaiian Islands (3)
- And **one** of the following courses:
 - GEOG 300 Climatology (3)
 - GEOL 450 Geological Remote Sensing (3)
 - GEOG 470 Remote Sensing/Air Photo (3)

Note: The minor in Earth and Space Science is undergoing review. Students are advised to consult with a Geology or Astronomy advisor before pursuing this program of study.

History

Department Chair: Douglas Mikkelson, Ph.D.

Email: dougkikk@hawaii.edu

Social Sciences Division Office:

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Website: hilo.hawaii.edu/depts/history/

Professors:

- Michael Bitter, Ph.D.
- Kerri Inglis, Ph.D.
- Douglas Mikkelson, Ph.D.

Associate Professors:

- Yucheng Qin, Ph.D.
- Jeffrey Smith, Ph.D.

Affiliate Faculty:

- Gary Y. Okihiro, Ph.D.

Emeritus Professor:

- Sandra Wagner-Wright, Ph.D.

The History faculty provides students with an understanding of the past and its application to the present. The curriculum leading to the Bachelor of Arts in History is designed to develop broad historical knowledge and the skills in data analysis and communication of critical importance in all professional endeavors:

1. The History major provides students with a basic knowledge of history in the United States, Europe, East Asia, Hawai'i, and the Pacific Islands; and with a basic knowledge of historiography.
2. The History major assists students in the development of their ability to communicate clearly, both orally and in writing, and in the development of their ability to gather, process, and analyze information from various sources, including primary and secondary source material found in print and Internet formats.
3. The History major provides students with the opportunity to apply their discipline-based skills and knowledge in a capstone experience.

The Department's full-time faculty members each cover one of the five discipline-based specialties in addition to working with students in research and capstone courses. The History major requires a total of 36 upper-division credit hours. The Department also offers a minor requiring 15 credits.



Student Learning Outcomes

Students earning the BA in History will:

1. Display knowledge of fundamental themes and narratives in history. This implies the ability to:
 - Discuss diverse time periods, peoples, situations, and societies;
 - Perceive past events and issues in an appropriate historical context;
 - Comprehend the interplay of change and continuity;
 - Grasp the complexity of historical causation;
 - Appreciate the nature of judgments about the past;
 - Read critically to differentiate fact and conjecture, evidence and assertion, and thereby to frame useful questions.
2. Conduct original historical research. This implies the ability to:
 - Design analytical and historiographically significant research questions;
 - Research and analyze historical evidence from both primary and secondary sources;
 - Construct an interpretation that answers the questions posed in the project;
 - Situate the interpretation in the historiography of the topic being analyzed.
3. Communicate historical knowledge and explanations to others. This implies the ability to:
 - Present a historical interpretation in a well-organized, readable, and logical manner;
 - Follow proper rules of grammar and syntax, and accepted style of the profession (Chicago Manual of Style).

Prospects for History Graduates

History graduates have an excellent foundation for any profession and are actively engaged in the following career paths: education at all levels; preservation and interpretation at museums and historic sites; the National Park Service, civilian historians of the armed forces and government agencies; the legal professions; journalism; film and documentary media; information management; archives and records management; librarianship and information technology; and business careers such as banking, insurance, marketing, and public relations.

Special Aspects of the History Program

History students are eligible for membership in Alpha Beta Omicron chapter of Phi Alpha Theta (the national history honor society). Student members of this society are eligible to present papers at the regional PAT conference and, in past years, have received top honors for outstanding undergraduate writing. Through the History Club students have participated in community activities such as Toys for Tots and food bank drives, excursions to historic sites, and film nights. Students are also able to use the History Resource Room with its library, computers, and study facilities.

Contributions to the General Education Program

The study of History applies directly to important goals of UH Hilo's General Education program. The Department is committed to offering

high quality, lower-division courses directly applicable to [General Education requirements](#). HIST 151 World History to 1500 (3) and HIST 152 World History since 1500 (3) may be applied to the Area Requirement in Social Sciences or to the World Cultures Requirement, but the same course cannot satisfy both requirements.

Curricula

- [B.A. in History Requirements](#)
- [History Minor](#)
- [Public History Certificate](#)
- [History \(HIST\) Courses](#)

B.A. in History Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment lasting longer than one semester.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

- The following courses from the GE Offerings are required for the History Major:
 - HIST 151 World History to 1500 (3)
 - HIST 152 World History since 1500 (3)
 - GEOG 102 World Regional Geography (3) **OR** GEOG 103 Geog And Contemp Soc (3)
 - CS 101 Digital Tools for Info World (3)

The new GE basic, core, and integrative requirements and lists of certified courses are posted at [General Education website](#).

Group 2. Major Requirements and Assigned Credits (39 credits)

1. **Required Core Courses (27)**
 - HIST 300 Historical Methods (3)
 - HIST 301 Professional Practice (3)
 - **One** 300-level course in European History. (3) Choose from:
 - HIST 319 European Women's History (3)
 - HIST 322 The Bible and History (3)
 - HIST 323 Ancient Greece (3)
 - HIST 341 Ancient Rome (3)
 - HIST 352 History of Britain to 1776 (3)
 - HIST 353 English History & Shakespeare (3)
 - HIST 354 Intro to Islamic History (3)
 - HIST 356 Medieval Europe (3)
 - HIST 357 Renaissance & Reformation (3)
 - HIST 358 Women in Christianity (3)
 - HIST 359 Christianity & Western Traditn (3)
 - HIST 365 War & Empire in 18th Cent Eur (3)
 - HIST 375 Europe in The 19th Century (3)
 - HIST 385 Europe in Era Of World War I (3)
 - HIST 395 Europe in Era Of World War II (3)



- **One** 300-level course in East Asian History. (3) Choose from:
 - HIST 310 Hist of Japan I: Early Japan (3)
 - HIST 311 Hist Japan II: Tokugawa to Mej (3)
 - HIST 312 Hist of China I: Early China (3)
 - HIST 313 History Of China II: Qing (3)
 - HIST 314 Hist of Jpn III: 20th Cent-Pre (3)
 - HIST 318 Hist China III: 20th Cent-Pres (3)
- **One** 300-level course in U.S. History. (3) Choose from:
 - HIST 380 United States: 1620-1789 (3)
 - HIST 381 United States: 1790-1865 (3)
 - HIST 382 United States: 1866-1929 (3)
 - HIST 383 United States: 1930 - 1980 (3)
 - HIST 386 Pre 20th Century US History (3)
- **One** 300-level course in Pacific History. (3) Choose from:
 - HIST 316 Pacific History I: To 1900 (3)
 - HIST 317 Pacific History II: From 1900 (3)
 - HIST 321 Hist of Australia & N Zealand (3)
 - HIST 324 Militarization in the Pacific (3)
 - HIST 327 Environmental History--Pacific (3)
- **One** 300-level course in Hawaiian History. (3) Choose from:
 - HIST 332 Hawaiian Kingdom (3)
 - HIST 333 Twentieth Century Hawaii (3)
 - HIST 336 Disease & Medicine in Hawai'i (3)
 - HIST 339 Athletics & Health in Hawai'i (3)
- HIST 490 Historiography & Resrch Mthds (3)
- HIST 491 Senior Thesis (3)

2. Area Specialization Requirement (All Area Specializations require 12 upper division semester hours, including three 300- or 400-level courses and one 400-level course.): Students must select one area of specialization. All courses below are three semester hours of credit.¹

- *East Asia.* Choose from:
 - HIST 310 Hist of Japan I: Early Japan (3)
 - HIST 311 Hist Japan II: Tokugawa to Mej (3)
 - HIST 312 Hist of China I: Early China (3)
 - HIST 313 History Of China II: Qing (3)
 - HIST 314 Hist of Jpn III: 20th Cent-Pre (3)
 - HIST 318 Hist China III: 20th Cent-Pres (3)
 - HIST 420 Mao (3)
 - HIST 485 Seminar in World History (3)
- *Europe.* Choose from:
 - HIST 319 European Women's History (3)
 - HIST 322 The Bible and History (3)
 - HIST 323 Ancient Greece (3)
 - HIST 341 Ancient Rome (3)
 - HIST 352 History of Britain to 1776 (3)
 - HIST 353 English History & Shakespeare (3)
 - HIST 354 Intro to Islamic History (3)
 - HIST 356 Medieval Europe (3)
 - HIST 357 Renaissance & Reformation (3)
 - HIST 358 Women in Christianity (3)
 - HIST 359 Christianity & Western Traditn (3)
 - HIST 365 War & Empire in 18th Cent Eur (3)
 - HIST 375 Europe in The 19th Century (3)
 - HIST 385 Europe in Era Of World War I (3)
 - HIST 395 Europe in Era Of World War II (3)
 - HIST 425 History Of Russia To 1700 (3)
 - HIST 435 Russia Since Peter The Great (3)
 - HIST 445 European Imperialism (3)
 - HIST 455 Euro Intellect Hist Snce 1789 (3)
 - HIST 459 Germany Snce Frederick The Grt (3)
 - HIST 485 Seminar in World History (3)

- HIST 486 Women in Ancient European Civi (3)
- *Hawai'i.* Choose from:
 - HIST 332 Hawaiian Kingdom (3)
 - HIST 333 Twentieth Century Hawaii (3)
 - HIST 336 Disease & Medicine in Hawai'i (3)
 - HIST 339 Athletics & Health in Hawai'i (3)
 - HIST 401 Women in Hawaiian History (3)
 - HIST 403 Hawaiian Historiography (3)
 - HIST 485 Seminar in World History (3)
- *Pacific.* Choose from:
 - HIST 316 Pacific History I: To 1900 (3)
 - HIST 317 Pacific History II: From 1900 (3)
 - HIST 321 Hist of Australia & N Zealand (3)
 - HIST 324 Militarization in the Pacific (3)
 - HIST 327 Environmental History--Pacific (3)
 - HIST 411 Family & Gender in Oceania (3)
 - HIST 415 Senior Seminar Pacific Studies (3)
 - HIST 481 Land & Sovereignty in Pacific (3)
 - HIST 485 Seminar in World History (3)
- *United States.* Choose from:
 - HIST 380 United States: 1620-1789 (3)
 - HIST 381 United States: 1790-1865 (3)
 - HIST 382 United States: 1866-1929 (3)
 - HIST 383 United States: 1930 - 1980 (3)
 - HIST 386 Pre 20th Century US History (3)
 - HIST 470 US in the World 1865-2003 (3)
 - HIST 471 US Constitutional History (3)

3. World History Specialization Instead of a regional focus, students may choose to specialize in world history. For this option GE and core requirements remain the same.

- Additional three (3) 300-level (or equivalent) courses from three (3) separate areas of the five (5) areas of specialization (totaling 9.0 credits) or any 300-level world history designated courses (HIST 361 History of Sport (3))
- One (1) 400-level course from the list of designated world history courses:
 - HIST 445 European Imperialism (3)
 - HIST 470 US in the World 1865-2003 (3)
 - HIST 485 Seminar in World History (3)

¹ All Area Specializations require 12 upper division semester hours, including **three** 300- or 400-level courses and **one** 400-level course.

Total Semester Hours Required for the B.A. in History

120 credits required.

Notes

1. The following courses in **1. General Education Requirements**, must be passed with a "C-" or better grade:
 - English Composition
 - Quantitative Reasoning
 - HIST 151 World History to 1500 (3)
 - HIST 152 World History since 1500 (3)
 - GEOG 102 World Regional Geography (3) **or** GEOG 103 Geog And Contemp Soc (3)
 - CS 101 Digital Tools for Info World (3)
2. A minimum GPA of 2.8 must be maintained in the 300- and 400-level History courses.
3. At least 45 credits must be earned at the 300- or 400-level.



- To earn a Bachelor of Arts degree in History, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
- Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
- In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
- To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

History Minor

Requirements (18 credits):

- The History minor at UH-Hilo requires 6 courses (18.0 Credits) in [HIST courses](#) all to be completed with a minimum grade of "C". Up to 2 courses (6.0 Credits) may be at the 100- or 200-level; at least 4 courses (12.0 Credits) must be at the the 300- of 400-level.

Public History Certificate

Coordinator: Kerri Inglis, Ph.D.

Email: inglis@hawaii.edu

Website: <https://hilo.hawaii.edu/depts/history/publichistory.php>

Certificate Description

Public History promotes a collaborative study of the past that generally takes place in settings beyond the traditional classroom. With an emphasis on applied learning, the Public History Certificate encourages students to build upon their foundation in public history courses offered in the history department by choosing electives from at least three different disciplines. Completion of the certificate will prepare students for future endeavors in museums, archives, resource management, oral history, film and media production, etc.

As a growing and popular new field within the discipline of history, public history offers new and exciting opportunities for historians, and those who pursue this certificate. This certificate is interdisciplinary in nature, provides internship (applied-learning) opportunities, and endeavors to serve our university and local communities.

Students will be required to take 9.0 credits from core course offerings, plus 12.0 credits of electives in order to complete the certificate.

Program Learning Outcomes for the Public History Certificate

Those who successfully complete the Public History Certificate will be able to:

- demonstrate basic knowledge of origins, evolution and major debates in the field of public history, its history, its historiography and the current theories and ethics that define the professional practice (historical museums, historical societies, historic preservation, etc)
- understand current methods and skills in historical documentation and interpretation to make history accessible and useful to the public
- demonstrate ability to analyze and apply interpretive historical

- methods to public historical documents and sources such as monuments, buildings, material culture, electronic media and other public and collective representations of the past
- think critically about history – drawing conclusions from readings, applying knowledge to new situations, analyzing and synthesizing secondary and primary sources, evaluating arguments, and understanding how historical interpretation fit into the larger context of historical inquiry
- communicate historical knowledge and interpretations to a variety of general public audiences and/or through a variety of public history venues, demonstrating an understanding of strategies of visual display and exhibition of historical content for public audiences
- understand practical and ethical issues related to communicating history to a variety of general public audiences
- recognize potential career paths related to public history

Program Plan (21 Credits)

1. Required Courses (9 Credits)

- HIST 390 Public History in Hawai'i (3)
- HIST 391 Internship (3)
- HIST 393 Hist Preservation & Archives (3)

2. Elective Courses (12 Credits) Choose 3 courses (12 credits) from at least 3 different alphas

- ART 392 History of Art and Technology (3)
- ANTH 388 Historical Archaeology (3)
- ANTH 389 Cultural Resource Management (3)
- ANTH 470 Museology (3)
- COM 240 Professional Communication (3)
- COM 260 Media and Culture (3)
- COM 444 Public Relations (3)
- ENG 200E Lit Genres: Myth/Folklore (3)
- ENG 205 Hawai'i on Screen (3)
- ENG 206 Intro to Popular Culture (3)
- GEOG 328 Cultural Geography (3)
- GEOG 331 Tourism Geographies (3)
- GEOG 382 Qualitative Research (3)
- HIST 284 History of Hawaii (3)
- HIST 300 Historical Methods (3)
- HIST 301 Professional Practice (3)
- HIST 389 Oral History Methods (3)
- POLS 360 Public Administration (3)

Kinesiology and Exercise Sciences

Department Chair: Harald Barkhoff, Ph.D. **Email:** harald@hawaii.edu

Social Sciences Division Office:

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Website: hilo.hawaii.edu/depts/kinesiology/

Professors:

- Harald Barkhoff, Ph.D.
- Lincoln Gotshalk, Ph.D.

Assistant Professors:

- Ozan Atalag, Ph.D.



- Misty Pacheco, Dr.PH, M.H.A.
- Christine Waters-Banker, Ph.D.

The Kinesiology and Exercise Sciences (KES) program within the College of Arts and Sciences offers students the following degrees:

- [B.A. in Kinesiology and Exercise Sciences](#)

The KES program provides students with a diverse range of high quality instruction and opportunities within the areas of health, physical education, recreation, and the exercise sciences. Furthermore, activity courses provides individuals with exposure to a variety of physical activities and opportunities to enhance their overall well being. Lecture type courses provide introductory and advanced preparation for the fields of education, management and/or coaching, health promotion, and the exercise sciences with include sport psychology, athletic training, physical therapy and exercise physiology.

Goals for Student Learning in the Major

A student who completes the Kinesiology and Exercise Sciences degree program will be able to:

- Participate in basic physical and recreational activities.
- Identify the fundamental anatomical functions, the physiological mechanisms, and the biomechanical concepts involved with human movement and human performance.
- Apply for acceptance into the Teacher Education Program with the desire to become a Secondary Health and Physical Education teacher.
- Apply for acceptance into graduate school in the areas of the exercise sciences, health, medical school, physical therapy programs, and athletic training programs.
- Able to provide care and expertise within the area of health.
- Identify and understand the various health issues within our society, especially those encountered by elementary and secondary school students.

Curricula

- [B.A. in Kinesiology and Exercise Sciences Requirements](#)
- [Kinesiology and Exercise Sciences \(KES\) Courses](#)
- [Community Health Education \(CHE\) Courses](#)

B.A. in Kinesiology and Exercise Sciences Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements

Core Requirements for all three tracks (20 credits)

- KES Activities courses (two 1 credit courses of choice; all activities courses are 100-level, one credit courses.)
- KES 202 Health Promotion (3)
- KES 206 Basic Human Movement (3)
- KES 207 Basic Human Nutrition (3) **or** NURS 375 Applied Human Nutrition (3)
- KES 209 Data and Stats in Kinesiology (3) **or** MATH 121 Intro Stats & Prob (3), PSY 213 Statistical Techniques (4), SOC 280 Statistical Reasoning (3)
- KES 260 Exercise Science Anat & Phys I (3) **or** BIOL 243 Human Anatomy & Physiology I (3)
- KES 261 Exercise Science Anat & Phy II (3) **or** BIOL 244 Human Anatomy & Physiology II (3)

Choose one of the following three tracks

1. KESE: Kinesiology and Exercise Track (38 credits)

1. Choose **three courses** – 9 credits from the following:
 - KES 208 Elementary Tests & Measurement (3)
 - KES 302 Sport & Spirituality (3)
 - KES 306 Advanced Human Movement (3)
 - KES 308 Science Behind Trng Athletes (3)
 - KES 310 Basic Motor Learning (3)
 - KES 330 Applied Motor Learning (3)
 - KES 370 Sport Psychology (3)
 - KES 380 Applied Sport Psychology (3)
 - KES 443 Adapted Physical Education (3)
2. And **three additional KES courses** at the 300- or 400-level (9)

2. KESM: Sports Medicine and Therapy Track (38 credits)

1. Choose **three courses** – 9 credits from the following:
 - KES 234 Care & Prev Athletic Injuries (3)
 - KES 334 Adv Care & Preventn Athlct Inj (3)
 - KES 343 Musculoskeletal Anatomy (3)
 - KES 344 Musculoskeletal Physiology (3)
 - KES 348 Exercise Physiology (3)
 - KES 440 Physiology of Aging (3)
 - KES 470 Physical-Occupational Therapy (3)
 - KES 480 Sports Medicine (3)
 - NURS 348 Human Pathophysiology (3)
2. And **three additional KES courses** at the 300- or 400-level (9)

3. KESH Health Promotion Track (38 credits)

1. Required Courses for Health Promotion track:
 - KES 250 Foundation of Public Health (3)
 - KES 350 Health Promotion Prog Planning (3)
 - KES 450 Health Promotion Practicum (3)
2. In addition choose **three courses** (9 credits), from any [KES courses](#) at the 300- or 400-level or from the following courses in related fields:
 - ANTH/WS 324 Culture, Sex And Gender (3)
 - PSY/WS 325 Psychology Of Women (3)
 - PSY 352 Introduction to Biopsychology (3)
 - PSY 452 Drugs of Abuse (3)
 - PSY 360 Cross-Cultural Psy (3)



- PSY 380 Health Psychology (3)
- NURS 359 Foundation of Health Promotion (3)
- NURS 360 Health Care Policy (3)
- NURS 372 Spirituality in Health Care (3)
- NURS 373 Gerontological Health Care (3)
- PHIL 355 Philosophy of Sport (3)
- PHIL 329 Environmental Ethics (3)
- PHIL 327 Bioethics (3)
- PHIL 316 Science, Technology & Values (3)
- SOC 310 Race & Ethnic Relations (3)
- SOC/WS 345 Human Populations (3)

Total Semester Hours Required for the B.A. in Kinesiology and Exercise Sciences

120 credits required.

Notes

1. All courses in **Group 2, Major Requirements**, must be completed with a grade of "C-" or better except for two Activity Courses, BIOL 243 Human Anatomy & Physiology I (3), and BIOL 244 Human Anatomy & Physiology II (3).
2. An overall GPA of 2.0 in the major is required.
3. At least 45 credits must be earned at the 300- or 400-level.
4. To earn a Bachelor of Arts degree in **Kinesiology and Exercise Sciences**, students must fulfill the requirements for the major and meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Languages

Department Chair: Masafumi Honda, Ph.D.

Email: masafumi@hawaii.edu

Humanities Division Office:

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

Website: hilo.hawaii.edu/academics/languages/

Professor Emeritus:

- Lawrence Rogers, Ph.D.

Professors:

- Yoshiko Fukushima, Ph.D.
- Yoshiko Okuyama, Ph.D.

Associate Professors:

- Jiren Feng, Ph. D.
- Masafumi Honda, Ed.D.
- Faith Mishina, Ph.D.

Assistant Professors:

- Rodney Jubilado, Ph.D.

The Department of Languages offers instruction in Chinese, Filipino (Tagalog), Japanese, Korean, and Spanish, as well as related courses in literature, culture, and language studies. Each program is comprehensive in approach, developing the functions of speaking, comprehension, reading, and writing and enhancing knowledge of the target area's culture, history, society and the people.

The Department's course offerings in languages can be found under the following course prefixes:

- Chinese: [CHNS](#)
- Filipino: [FIL](#)
- Japanese: [JPNS](#)
- Korean: [KOR](#)
- Spanish: [SPAN](#)
- Language Studies: [LANG](#)

Hawaiian Language courses offered by [Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language](#) are listed under [HAW](#) and [KHAW](#) in this Catalog.

Program Objectives and Student Outcomes

- Understanding the general nature of human language, first language and second language and verbal and nonverbal -- its structure and use
- Manifest the skills, understandings, and dispositions necessary to be a language specialist within the context of their professional work and social practice
- Deepen their knowledge of the language and the culture through study of language, language pedagogy, literature and culture
- Demonstrate an understanding of local language and language arts education issues of Hawaii and the Pacific in their professional work
- Improve the quality of learning and teaching of second, foreign, and heritage languages and area studies, in the state of Hawaii, domestically, and abroad
- Interpret the history of teaching foreign language and culture and its contemporary issues and critically evaluate and make use of research into the learning, use, structure, and its pedagogy

The Department of Languages does not offer a Language major. It does, however, house the following free-standing interdisciplinary programs:

- BA and Minor in [Japanese Studies](#)
- [Certificate in Chinese Studies](#)
- [Certificate in Filipino Studies](#)
- [Certificate in Spanish Language for Careers](#)

Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language offers a [Master of Arts degree in Hawaiian Language and Literature](#).

Curricula

- [Chinese Studies Certificate](#)
 - [Chinese Studies Certificate Requirements](#)
 - [Chinese \(CHNS\) Courses](#)
- [Filipino Studies Certificate](#)
 - [Filipino Studies Certificate Requirements](#)
 - [Filipino \(FIL\) Courses](#)
- [Japanese Studies](#)
 - [B.A. in Japanese Studies Requirements](#)



- Japanese Studies Minor
- Japanese (JPNS) Courses
- Japanese Studies (JPST) Courses
- Certificate in Spanish Language for Careers
 - Spanish Language Certificate Requirements
 - Spanish (SPAN) Courses
- Korean (KOR) Courses
- Languages (LANG) Courses
- Spanish (SPAN) Courses

Japanese Studies

Japanese Studies Program Coordinator: Masafumi Honda

Email: masafumi@hawaii.edu

Humanities Division Office:

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

Website: hilo.hawaii.edu/academics/japanese-studies/

Languages Faculty:

- **Professors:**
 - Yoshiko Fukushima, Ph.D.
 - Yoshiko Okuyama, Ph.D.
- **Associate Professors:**
 - Masafumi Honda, Ed.D.
 - Jiren Feng, Ph. D.

Contributing Faculty:

- **Professors:**
 - John H. L. Cheng, Ph.D.
 - Jean Ippolito, Ph.D.
 - Christopher Reichl, Ph.D.
 - Enbao Wang, Ph.D.
- **Associate Professors:**
 - Yumiko Ohara, Ph.D.
 - Yucheng Qin, Ph.D.
 - Scott Saft, Ph.D.

Mission

The mission of the undergraduate degree program in Japanese Studies is to offer a broad range of coursework and research opportunities for students that is designed to develop an understanding of Japan in all of its dimensions: culture, society, language, art, political science, history, music, and others. The Japanese Studies major provides undergraduate research opportunities, a liberal arts foundation, and preparation for a variety of careers. Separate curricula are designed for two types of students:

1. **Non-native speakers of Japanese:** these students are enabled to master the Japanese language in its aspects of structure (Japanese linguistics), literature, and translation, in addition to the areas of study mentioned above.
2. **Native speakers of Japanese:** these students are enabled to master the English language in its aspects of structure (English linguistics), literature and translation, in addition to the areas of study mentioned above. Native speakers of Japanese are also

enabled to develop explicit knowledge of Japanese language phonology, morphology, semantics and syntax.

The program involves significant multidisciplinary study of Japanese civilization centered on a core of language study. It should be of special interest to students who intend to pursue advanced degrees and/or careers in Japanese Studies or in related professional areas, including international business, tourism, journalism, government service, the arts, translation, and, in general, culture brokerage between Japan and the United States. Anyone simply interested in Japanese society and culture will derive considerable benefit from majoring in Japanese Studies.

Goals for Student Learning in the Major

Among the learning goals for majors are the development of:

1. Appropriate language ability:
 - Japanese language ability and expertise for non-native speakers of Japanese
 - English language ability and expertise for native speakers of Japanese
2. An appreciation of how the Japanese cultural background may influence the communications, styles of interaction, and family structure.
3. An ability to integrate information from the different approaches to the study of Japan and shape it into an overall understanding of Japanese language, culture, and behavior.

Special Features of the Program

The Japanese Studies program also strongly supports the General Education core and the University's mission as a comprehensive regional university with a special focus on the Asia and Pacific region.

Most summers, UH Hilo offers students the opportunity to visit and study in Japan through the Foreign Field Experience course (Interdisciplinary Studies 393).

Curricula

- B.A. in Japanese Studies Requirements
- Japanese Studies Minor
- Japanese (JPNS) Courses
- Japanese Studies (JPST) Courses

B.A. in Japanese Studies Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).



Group 2. Major Requirements and Assigned Credits (44-46 credits)

1. Required Core Courses (6)

- LANG/JPST 200 Intro to Jpns & Chns Studies (3)
- JPNS/JPST 495 Japanese Studies Seminar (3)

2. Language Core Courses (20-22)

- For **Non-Native** speakers of Japanese only (20-22):
 - JPNS/JPST 101 Elementary Japanese I (4) **or** JPNS/JPST 101S Elementary Japanese I, Special (3)
 - JPNS/JPST 102 Elementary Japanese II (4) **or** JPNS/JPST 102S Elementary Japanese II Special (3), **or** JPNS/JPST 107 Accelerated Element Japanese (8)
 - JPNS/JPST 201-202 Intermediate Japanese I (4), Intermediate Japanese II (4)
 - JPNS/JPST 301-302 Third-Year Japanese I (3), Third-Year Japanese II (3)
- For **Native** speakers of Japanese only (21):
 - LING 102 Introduction to Linguistics (3)
 - LING/ANTH 221 Intro to Language (3) (Formerly offered as LING/ANTH 221)
 - LING/ANTH 321 Morphology And Syntax (3)
 - LING/ENG 324 Modern English Grammar (3)
 - JPNS/JPST 425 Translation Workshop (3)
 - **Two** Writing Intensive courses at the 300- or 400-level (6)

3. Japan-related Courses 18 credits required, six different courses selected from **at least two of the following three blocks**:

- *Block I.*
 - HIST/JPST 310 Hist of Japan I: Early Japan (3)
 - HIST/JPST 311 Hist Japan II: Tokugawa to Meij (3)
 - HIST/JPST 314 Hist of Jpn III: 20th Cent-Pre (3)
 - POLS/JPST 353 Politics Of Japan (3)
 - ANTH/JPST 356 Japan (3)
 - ANTH/JPST 358 Japanese Immigrants (3)
 - JPNS/JPST 359 Japanese in Hawai'i (3)
 - JPNS/JPST/WS 361 Feminism in Japan (3)
 - JPNS/JPST 370 Lang, Cul & Identity of Japan (3)
 - JPST/SOC 414 Global Social Movements & Japan (3)
 - JPNS/JPST 494 Special Topics in Subject Matter (To Be Arranged)
- *Block II.*
 - JPST 315 East Asian Religions (3)
 - JPNS/JPST/ENG 365 Japanese Lit in English (3)
 - JPNS/JPST 370 Lang, Cul & Identity of Japan (3)
 - MUS/JPST 375 Jpnse Music (3)
 - JPNS/JPST 380 Japanese Mythology in Film (3)
 - ART / JPST 381 Art of Japan (3)
 - JPNS/JPST 382 Gender & Min Japanese Comics (3)
 - JPNS/JPST/DRAM 383 Japanese Theatre & Performance (3)
 - JPNS/JPST 385 Postwar Jpn thru Film & Lit (3)
 - PHIL/JPST 430 Philosophy of Zen (3)
 - PHIL/JPST 450 Mahayana Buddhist Phil (3)
 - COM/JPST 457 Japanese Culture & Commun (3)
 - JPNS/JPST 494 Special Topics in Subject Matter (To Be Arranged)
- *Block III.*
 - JPNS/JPST 340 Japanese Composition (3)
 - JPNS/JPST 345 Methods for Teaching Japanese (3)
 - JPNS/JPST 401 Fourth-Yr Japanese I (3)
 - JPNS/JPST 402 Fourth-Year Japanese II (3)
 - LANG/JPST/CHNS 410 History of Chinese Characters (3)
 - JPNS/JPST 425 Translation Workshop (3)
 - JPNS/JPST/LING 451 Structure Of Japanese I (3)

- JPNS/JPST/LING 452 Structure Of Japanese II (3)
- JPNS/JPST 481 Rdgs in Modern Japanese Lit I (3)
- JPNS/JPST 494 Special Topics in Subject Matter (To Be Arranged)

Total Semester Hours Required for the B.A. in Japanese Studies

120 credits required.

Notes

1. A 2.0 GPA or better is required in courses that are required for the major.
2. At least 45 credits must be earned at the 300- or 400-level for graduation.
3. To earn a Bachelor of Arts degree in Japanese Studies, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Japanese Studies Minor

Requirements (20-22 credits):

- LANG/JPST 200 Intro to Jpns & Chns Studies (3)
- JPNS/JPST 101 Elementary Japanese I (4) **or** JPNS/JPST 101S Elementary Japanese I, Special (3)
- JPNS/JPST 102 Elementary Japanese II (4) **or** JPNS/JPST 102S Elementary Japanese II Special (3), **or** JPNS/JPST 107 Accelerated Element Japanese (8)
- JPNS/JPST 201-202 Intermediate Japanese I (4), Intermediate Japanese II (4)
- **And three credits** chosen from any Japan-related [JPST courses](#). (3)

Interested students must see the Japanese Studies advisor during the first two years of language study.

Chinese Studies Certificate

Languages Department Chair: Masafumi Honda, Ed.D.

Email: masafumi@hawaii.edu

Program Coordinator: Jiren Feng, Ph.D.

Email: jirenf@hawaii.edu

Humanities Division Office:

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

Languages faculty:

- **Associate Professor:**
 - [Jiren Feng](#), Ph. D.

Affiliated faculty:



- **Professors:**

- Jerry Calton, Ph.D. (Management)
- John H. L. Cheng, Ph.D. (Philosophy)
- Jean Ippolito, Ph.D. (Art)
- Christopher Reichl, Ph.D. (Anthropology)
- Tam Vu, Ph.D. (Economics)
- Enbao Wang, Ph.D. (Political Science)

- **Associate Professors:**

- Yucheng Qin, Ph.D. (History)

The Chinese Studies Certificate program involves significant multidisciplinary studies of Chinese civilization centered on a core of language study. It should be of special interest to students who intend to pursue advanced degrees and/or careers in Chinese Studies or in related professional areas, including international business, tourism, journalism, government service, the arts, translation, and, in general, culture brokerage between China and the United States. Anyone interested in Chinese society and culture will derive considerable benefit from study of Chinese Studies.

Mission

The mission of the Chinese Studies Certificate is to offer a broad range of coursework and research opportunities for students that are designed to develop an understanding of China in all of its dimensions: culture, society, language, art, political science, history, and others. The Chinese Studies Certificate provides undergraduate research opportunities, a liberal arts foundation, and preparation for a variety of careers.

Program Learning Outcomes

- Understanding the general nature of human language, first language and second language and verbal and nonverbal - its structure and use
- Manifest the skills, understandings, and dispositions necessary to be a language specialist within the context of their professional work and social practice
- Deepen their knowledge of the language and the culture through study of language, language pedagogy, literature and culture
- Demonstrate an understanding of local language and language arts education issues of Hawai'i and the Pacific in their professional work
- Improve the quality of learning and teaching of second, foreign, and heritage languages and area studies, in the state of Hawai'i, domestically, and abroad
- Interpret the history of teaching foreign language and culture and its contemporary issues and critically evaluate and make use of research into the learning, use, structure, and its pedagogy

Goals for Student Learning in the Certificate Program

Among the learning goals for majors are the development of:

1. Appropriate language ability:
 - Chinese language ability and expertise for non-native speakers of Chinese
 - English language ability and expertise for native speakers of Chinese
2. An appreciation of how the Chinese cultural background may influence communications, styles of interaction, and family structure.
3. An ability to integrate information from the different approaches to the study of China and shape it into an overall understanding of

Chinese language, culture, and behavior.

Curricula

- [Chinese Studies Certificate Requirements](#)
- [Chinese \(CHNS\) Courses](#)

Chinese Studies Certificate Requirements

Requirements (17 credits):

1. Language Core: (8)

- CHNS 101 Elementary Chinese I (4)
- CHNS 102 Elementary Chinese II (4)

OR

- CHNS 107 Accelerated Elementary Chinese (8)

2. Electives: Choose 9 semester hours from the following

- ART 380 Art Of China (3)
- CHNS 200 Conversational CHNS Business (3)
- CHNS 350 Chinese Folklore and Symbolism (3)
- CHNS 360 Chinese Culture through Film (3)
- CHNS 364 Chns Lit in Eng-Modern (3)
- CHNS 381 Chns Cult thru Arch & Garden (3)
- CHNS 410 History of Chinese Characters (3)
- ECON 415 SE Asia-China Econ Relations (3)
- HIST 312 Hist of China I: Early China (3)
- HIST 313 History Of China II: Qing (3)
- HIST 318 Hist China III: 20th Cent-Pres (3)
- HIST 420 Mao (3)
- LANG/JPST 200 Intro to Jpns & Chns Studies (3)
- MGT 333 International Business Mgt (3)
- PHIL 301 Hist Of Chinese Philosophy (3)
- PHIL 435 Philosophy Of Tao (3)
- POLS 351 Politics Of China (3)

Filipino Studies Certificate

Languages Department Chair: Masafumi Honda, Ph.D.

Email: masafumi@hawaii.edu

- **Program Coordinator:**

- Rodney Jubilado, Ph.D., Assistant Professor, Filipino
rodneycj@hawaii.edu

- **Humanities Division Office:**

Office: Kanaka'ole Hall, Room 214

Tel: (808) 932-7216

- **Affiliate faculty:**

- Norman Arancon, Ph.D., Associate Professor, Horticulture
- Celia Bardwell-Jones, Ph.D., Associate Professor, Philosophy
- Sarah Marusek, Ph.D., Associate Professor, Political Science
- Christopher Reichl, Ph.D., Professor, Anthropology

The Filipino Studies Certificate provides a better understanding of the Filipino American community while allowing Filipino American students the opportunity to explore their heritage and non-Filipino American students an opportunity to learn about the Philippines. The multidisciplinary program comprising of a liberal arts foundation and cultural and natural resources-based studies will be offered in three tracks:



1. Cultural-based
2. Natural resource-based
3. Cultural and natural resource-based combination

These tracks will provide platforms for undergraduate research opportunities, community outreach activities and an optional international student exchange between UH Hilo and participating Philippine universities. The certificate prepares students with the basic knowledge and understanding of the close political, economic and cultural ties between the Philippines and the US. This knowledge is essential for those seeking advanced degrees and careers including agriculture, environmental studies, medical fields, services, tourism, politics and global trade and business.

Mission

The mission of the Filipino Studies Certificate is to provide learning opportunities for students interested in understanding the multifaceted nature of the Philippines and Filipinos, including language, culture, history, literature, politics, economics and natural resources.

Program Learning Outcomes

- Understanding the general nature of human language, first language and second language and verbal and nonverbal – its structure and use
- Manifest the skills, understandings, and dispositions necessary to be a language specialist within the context of their professional work and social practice
- Deepen their knowledge of the language and the culture through study of language, language pedagogy, literature and culture
- Demonstrate an understanding of local language and language arts education issues of Hawai'i and the Pacific in their professional work
- Improve the quality of learning and teaching of second, foreign, and heritage languages and area studies, in the state of Hawai'i, domestically, and abroad
- Interpret the history of teaching foreign language and culture and its contemporary issues and critically evaluate and make use of research into the learning, use, structure, and its pedagogy

Goals for Student Learning in the Major

Among the learning goals for majors are the development of:

1. Appropriate language ability:
 - Filipino language ability and expertise for non-native speakers of Filipino
 - English language ability and expertise for native speakers of Filipino
2. An appreciation of how the Filipino cultural background may influence communications, styles of interaction, and family structure.
3. An ability to integrate information from the different approaches to the study of the Philippines and shape it into an overall understanding of Filipino language, culture, and behavior.

Curricula

- [Filipino Studies Certificate Requirements](#)
- [Filipino \(FIL\) Courses](#)

Filipino Studies Certificate Requirements

Requirements (17 Credits):

- **Required Core (11):**
 - FIL 101 Elementary Filipino I (4)
 - FIL 102 Elementary Filipino II (4)
 - ANTH/FIL 354 Filipino Culture (3)
- **Electives (6):**
 - *Culture-based track*, Choose 6 credits from the following:
 - ANTH/LING 221 Intro to Language (3) (*Formerly offered as ANTH/LING 121*)
 - FIL 200 Inter Conversational Filipino (3)
 - FIL 330 Filipino Films (3)
 - FIL 333 Filipinos in Hawaii (3)
 - FIL 394 Special Topics in Subject Matter (To Be Arranged)
 - POLS/WS 327 Law and Identity (3)
 - POLS/PHIL 328 Rights (3)
 - POLS 332 Politics Of Race & Gender (3)
 - PHIL/WS 304 Ethics and Cultural Diversity (3)
 - PHIL/WS 375 Feminist Philosophy (3)
 - *Natural Science-based track*, Choose 6 credits from the following:
 - AG 230 Sustainable Agriculture (3)
 - NRES 230 Philippines Environ & Nat Resou (3)
 - NRES 394 Special Topics in Subject Matter (To Be Arranged)
 - PHIL/WS 316 Science, Technology & Values (3)
 - *Culture and Natural Science-Combo*, Choose 6 credits from the following:
 - FIL 200 Inter Conversational Filipino (3)
 - POLS/GEOG 325 Legal Geography (3)
 - NRES 230 Philippines Environ & Nat Resou (3)
 - PHIL/WS 316 Science, Technology & Values (3)

Spanish Language for Careers

Contact: Faith N. Mishina
Email: mishina@hawaii.edu

The Spanish Language for Careers offers majors second language capability to augment students' chances for employment in their chosen careers and professions. The certificate is an additional tool to have in the student's dossier for the competitive job market. Nursing students, business students, those in government or financial services, law or education will acquire the ability to communicate and understand Spanish speakers. The Spanish certificate will also greatly help our many graduates that return to the mainland, especially to many states where Spanish is one of the dominant languages. Graduates with skills in Spanish will be highly competitive within the United States and internationally.

Requirements (16 credits):

1. **Required Core (12):**
 - SPAN 101 Elementary Spanish I (4)
 - SPAN 102 Elementary Spanish II (4)
 - SPAN 201 Intermediate Spanish I (4)
2. **Elective Courses (4 credits needed):**
 - SPAN 202 Intern Spanish II (4)
 - SPAN 301 Adv Spanish Conversation (3)
 - SPAN 306 Medical Spanish (3)
 - SPAN 307 Business Spanish (3)
 - SPAN 399 Directed Studies (To Be Arranged)



Liberal Studies

Liberal Studies Coordinator: Diane Van Hoose

Email: diane@hawaii.edu

Our Mission

The Liberal Studies Program is designed to help the students in the College of Arts and Sciences (CAS) develop and plan an interdisciplinary course of study that explores a particular problem or theme through a multi-disciplinary constellation of courses, enhances critical thinking with ethical thought, develops problem-solving skills, and creates well-informed, responsible and engaged global citizens.

The B.A. in Liberal Studies creates an academically sound and rigorous interdisciplinary course of study with thematic integrity and continuity. The program provides an interdisciplinary undergraduate education that can be gained by close contact of the faculty and the student, individual advising, and multi-curricular programming in relevant courses of the approved degree programs at the University of Hawaii at Hilo.

Program Learning Outcomes

Upon successful completion of the B.A. in Liberal Studies, students will be able to:

- Demonstrate knowledge of basic concepts and understand issues and methods from multiple academic disciplines of humanities, social sciences and natural sciences (Information Literacy, Scientific and Quantitative Reasoning);
- Employ computer technology and conduct interdisciplinary research to find information (Information Literacy, Scientific and Quantitative Reasoning);
- Critically examine social, cultural and historical human behaviors, conditions and movements and interpret the underlying contexts (Critical Thinking, Information Literacy, Communication);
- Present ideas, results and creative activities in oral and written forms (Communication);
- Identify and evaluate the ethical dimension of an issue and demonstrate the importance of behaving ethically in the target field (Critical Thinking);
- Produce senior-level interdisciplinary essays or projects (Critical Thinking, Information Literacy, Communication).

Any student in good academic standing (2.0 GPA or better) may apply for admission to the Liberal Studies degree program. At the time that the degree proposal is submitted to the Liberal Studies Program Coordinator, a student must have at least 21 more credits of course work still to undertake in the major-equivalent beginning with the subsequent semester or term.

An application form [word \(revised 09/2017\)](#) for the major-equivalent must be completed, which will include the following:

1. A statement addressing the student's educational goals as embodied in the proposal for a Liberal Studies major-equivalent;
2. An explanation of why these goals cannot be achieved through an existing major program;
3. A Student Learning Outcomes statement for the proposed program;
4. A justification of the 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 student will select a faculty advisor from among UH Hilo faculty, who

will work with the student to design the program of courses, write the Student Learning Outcomes, and will provide a memo endorsing the academic rigor and coherence of the proposed program of courses.

Students pursuing the Liberal Studies major equivalent must complete all UH Hilo requirements in the [General Education Basic, Area, and Integrative categories](#) and all other graduation requirements applying to students at UH Hilo, including the [baccalaureate degree requirements](#).

The application form must be approved by the Faculty Advisor, the Liberal Studies Coordinator, the College of Arts and Sciences Curriculum Review Committee and Dean. The form must be submitted to the Liberal Studies Coordinator no later than **November 1 for the fall semester or April 1 for the spring semester**. Once the proposal is accepted, the student should meet with the academic advisor each semester before registering.

Pre-Law Certificate

Coordinator: Sarah Marusek, Ph.D.

Email: marusek@hawaii.edu

According to the American Bar Association's Statement on Pre-Law Preparation, students wishing to pursue legal education should "take advantage of opportunities to develop research and writing skills" in order to develop a lawyering skill set.¹ Through rigorous engagement in a variety of subject areas taught by demanding instructors, such lawyering skills include "problem solving, critical reading, writing and editing, oral communication and listening, research, organization and management, public service and promotion of justice, relationship-building and collaboration, background knowledge, and exposure to the law." This interdisciplinary certificate has been developed to provide students, particularly transfer students, with a wide array of upper division electives from a variety of majors, including Anthropology, Business, English, Gender and Women's Studies, Geography, History, Management, Philosophy, Political Science, and Sociology.

Mission

The study of law is a postgraduate professional program usually requiring three years of full-time study beyond completion of the bachelor's degree. The mission of the Pre-Law Certificate is to provide an interdisciplinary opportunity for all interested students as no specific pre-law program or major is required for admission to law school. Whatever the major, students intending to apply to law school will benefit from taking courses that emphasize critical analysis, writing, and analytical/methodological frameworks of interpretation.

Program Learning Outcomes

1. Distinguish between descriptive and normative approaches to social, legal, and cultural problems.
2. Interpret law, moral principles, and institutions using a variety of interdisciplinary approaches, methods, and methodologies.
3. Identify and analyze contemporary and historical perspectives on the intersectionality of race, class, gender, and sexuality.
4. Incorporate academic approaches with the collaborative techniques of organization and problem-solving to address issues of public concern.
5. Produce research papers and projects with high levels of written and oral communication.



Pre-Law Certificate Course Requirements (24 Credits)

- 12 Credits of required core courses
- 12 Credits of electives from 3 different course alphas (courses may focus on one area **or** combine courses from the areas below).

1. Core (12 Credits)

- **Argumentation (3 Credits taken from)**
 - ENG 287 Introduction to Rhetoric (3)
 - PHIL 209 Reasoning (3)
 - PHIL 220 Social Ethics (3)
- **Context and Background (3 Credits taken from)**
 - HIST 151 World History to 1500 (3)
 - HIST 152 World History since 1500 (3)
 - SOC 100 Principles Of Sociology (3)
 - WS 151 Intro Gender & Women's Studies (3)
- **People and Place (3 Credits taken from)**
 - GEOG 103 Geog And Contemp Soc (3)
 - HIST 284 History of Hawaii (3)
- **Institutions and Legality (3 Credits taken from)**
 - POLS 101 Am Politics: National (3)
 - POLS 220 Intro to Law and Legality (3)

2. Electives (12 Credits)

- Choose 4 courses from a minimum of 3 different course alphas below. Students may choose to focus on one area **OR** combine courses from the areas below.
- **Rights and Disparities**
 - HIST 471 US Constitutional History (3)
 - PHIL 315 Ethical Theory (3)
 - PHIL 325 Philosophy Of Law (3)
 - PHIL 327 Bioethics (3)
 - PHIL 370 American Philosophy (3)
 - PHIL/WS 375 Feminist Philosophy (3)
 - POLS 300 Hist Poli Thought: Anc To Mod (3)
 - POLS 303 Feminist Political Theory (3)
 - POLS 304 Liberalism and Globalism (3)
 - POLS 321 Constitutional Law (3)
 - POLS 323 Criminal Law and Procedure (3)
 - POLS/WS 327 Law and Identity (3)
 - POLS/PHIL 328 Rights (3)
 - POLS 331 Presidency And Congress (3)
 - POLS 338 Public Policy Process (3)
 - POLS 428 First Amendment (3)
 - SOC/POLS 324 Criminology (3)
 - SOC 328 Gender, Crime, and Justice (3)
 - SOC 365 Sociology of Deviance (3)
 - WS 352 Gender and Sexuality (3)
- **Land Use and Cultural Resources**
 - ANTH 310 Contemp Iss in Hawaiian Anth (3)
 - ANTH 389 Cultural Resource Management (3)
 - BUS 240 Business Law (3)
 - GEOG 201 Interp Geog Data (3)
 - GEOG/POLS 325 Legal Geography (3)
 - GEOG 340 Intro to Land Use Planning (3)
 - GEOG 441 Environmentl Impact Assessment (3)
 - HIST 481 Land & Sovereignty in Pacific (3)
 - MGT 423 Business & Society (3)
 - PHIL 304 Ethics and Cultural Diversity (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 329 Environmental Ethics (3)

- POLS 335 Envir Politics & Policy (3)
- POLS 342 International Law (3)
- POLS 360 Public Administration (3)
- SOC 320 Social Stratification (3)
- **Skills and Professional Expertise**
 - ANTH 490 Internship in Archaeology (3-6)
 - GEOG 382 Qualitative Research (3)
 - GEOG 496 Planning Internship (3)
 - HIST 300 Historical Methods (3)
 - HIST 301 Professional Practice (3)
 - HIST 391 Internship (3)
 - PHIL 345 Symbolic Logic (3)
 - POLS 280 Methods of Research (3)
 - POLS 320 Mock Trial (3)
 - POLS 391 Internship (3-12)
 - SOC 391 Internship (3-12)
 - WS 200 Gender Leadership & Soc Just (3)

1. http://www.americanbar.org/groups/legal_education/resources/pre_la_w.html

Notes:

1. Students must pass each course within the certificate program with a grade of C or better.

Marine Science

Department Chair: [Marta deMaintenon, Ph.D.](#)

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Natural Sciences Division Office:

Office: Life Sciences, Room 2

Tel: (808) 932-7506/7507

Website: www.mare.hawaii.edu

Professors:

- [James Beets, Ph.D.](#)
- [Marta deMaintenon, Ph.D.](#)
- [Karla McDermid Smith, Ph.D.](#)
- [Misaki Takabayashi, Ph.D.](#)
- [Tracy Wiegner, Ph.D.](#)

Associate Professors:

- [Steven Colbert, Ph.D.](#)
- [Jason Turner, Ph.D.](#)

Instructors:

- [Lisa Parr, M.Env.St.](#)

Adjunct Associate Professor:

- [Timothy Brian Grabowski, Ph.D.](#)

Affiliate Faculty:

- [John H.R. Burns, Ph.D.](#)



- Charles H. Greene, Ph.D.
- Lisa Muehlstein, Ph.D.

Faculty Emeriti:

- Walter Dudley, Jr., Ph.D.

Educational Specialists:

- Matthew Connelly
- Etta Karth
- Stephen Kennedy

Marine Science is a well-rounded and multi-disciplinary program which has been carefully designed to take full advantage of the unique variety of marine environments available for study around the island of Hawai'i. Introductory lecture and laboratory courses in general oceanography and marine biology are followed by intermediate-level courses in marine ecology and evolution, marine methods, and statistical applications in marine science. The most advanced level of the degree programs is composed of specialized courses in geological, chemical, physical, and biological oceanography and electives. The programs culminate in a capstone sequence, allowing students to focus on independent projects involving research or applied internships.

Vision

We will be an international leader in marine science education and research. Our *kuleana* (responsibility and privilege) is to provide student-focused, transformative, authentic science experiences, drawing from the unique natural and cultural environment of Hawai'i. Our graduates will be broadly equipped to become innovative members of the global workforce, successful life-long learners, and engaged stewards of the marine environment. Faculty, staff, and students will collaborate and draw upon each other's strengths and diversity to achieve our shared vision of student success.

Mission

The marine science program at UH Hilo inspires and enlightens all learners about the ocean through interactive hands-on learning, research involvement, and community outreach centered on the natural and cultural environment of Hawai'i Island. This is supported by a broad background in the marine sciences, including fundamental knowledge of biology, chemistry, physics, geology, and mathematics.

Program Learning Goals

The Marine Science Program trains students in the primary disciplines in Marine Science and offers a wide diversity of courses in numerous sub-disciplines. The two degree options (B.A. and B.S.) provide students with opportunities to fulfill personal goals.

- **Content goals**—provide students with a solid background in:
 - The primary sciences and mathematics, including proficiency in chemistry, physics, calculus, computer applications related to the natural sciences, and laboratory techniques;
 - Marine science, including proficiency in marine biology, introductory oceanography, marine ecology, chemical oceanography, geological oceanography, and physical oceanography;
 - Advanced multidisciplinary undergraduate training in their choice of a variety of focal areas, including, but not limited to, geography, geology, biology, fisheries, and aquaculture.

- **General goals**—provide students with knowledge of and experience in:
 - The scientific method and critical thinking, including the ability to design and carry out an inquiry-based research or internship project, analyze primary scientific literature, write a scientific proposal, and write a research paper or compile a portfolio;
 - Scientific speech and discussion, including the ability to formally present a science project and discuss scientific issues.
- **Technical goals**—provide students with an understanding of and proficiency in:
 - Laboratory safety;
 - Oceanographic and marine biological laboratory methods and field techniques;
 - The use and application of bio-statistical and computer techniques;
 - Experimental design, data analysis, and interpretation of results, particularly in the use and application of marine monitoring techniques.

Goals for Student Learning in the Major

- SLO1: Explain core concepts in marine biology and oceanography.
- SLO2: Examine and discuss current scientific issues using information from a variety of sources including the primary literature and from class content.
- SLO3: Describe, and apply, key concepts of lab and field safety.
- SLO4: Perform core oceanographic and marine biology-based lab techniques.
- SLO5: Access the primary literature to find scholarly articles that discuss the results of experiments.
- SLO6: Summarize scholarly articles from the primary literature, and synthesize summarized information into a literature review.
- SLO7: Write a testable hypothesis.
- SLO8: Design and carry out a controlled scientific experiment.
- SLO9: Choose and use appropriate statistical methods to analyze experimental data.
- SLO10: Report experimental results in graphs and tables.
- SLO11: Interpret graphically presented data.
- SLO12: Draw conclusions from experimental results.
- SLO13: Write a scientific paper that reports the results of an experiment, following accepted guidelines for publication in a scientific journal.
- SLO14: Create and deliver an oral presentation appropriate for a scientific conference or symposium.
- SLO15: Apply knowledge gained from courses by interacting with global and/or local communities.

Prospects for Graduates

A Marine Science degree from UH Hilo opens doors to a wide variety of jobs, careers, graduate schools, and post-graduate opportunities. Employment possibilities following the B.A. include positions as marine research technicians, with marine-oriented government agencies and non-profit organizations, in eco-tourism, as teachers in public and private schools, and in the practice of environmental law. UH Hilo B.S. graduates are well prepared to continue to graduate schools in Hawai'i, in the continental USA, or overseas in pursuit of higher degrees and careers in management, secondary school education, academia, and research. Medical, dental, and veterinary schools are also post-graduate options for UH Hilo Marine Science graduates.



Special Aspects of the Marine Science Program

Marine Vessels

The Marine Science Department manages a fleet of marine vessels used for education and research. The R/V *Makani 'Aha*, a 38-foot research/education monohull catamaran is used to support marine science courses and student research and is capable of carrying up to 18 students and deploying a CTD, current meters, drogues, sediment coring apparatuses, and plankton nets. An 18-foot Larson motorboat is used as a nearshore research vessel and two Zodiac inflatables support scuba diving operations.

SCUBA Diving

We collaborate with [UH Diving Safety Program](#) and the UH Hilo Unit Diving Coordinator to maintain an inventory of scuba equipment for research diver training and *in situ* research projects.

Scanning Electron Microscopy Laboratory

The Marine Science department houses a scanning electron microscope and elemental analysis facility. Classes in oceanography and marine biology use the facility as part of the curriculum. Students can also take a course on basic principles of operation and applications, if interested, and then use the facility to conduct research as part of their degree program.

The Marine Option Program (MOP)

The [Marine Option Program \(MOP\)](#) is a certificate program available to all undergraduate students at the University of Hawai'i, regardless of major. The program has branches on campuses throughout the UH system. The MOP certificate is earned by completing selected course work and completing a hands-on project or internship, thus combining academic requirements with practical experience in an area of marine interest of the student's choice. 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 among UH campuses. UH Hilo MOP also coordinates QUEST (Quantitative Underwater Ecological Surveying Techniques), the annual UH system-wide scuba research techniques course.

MOP also serves as the UH Hilo center for marine-related activities. UH Hilo MOP offers students experience in a variety of skills, including research, underwater photography, sailing and seamanship, fishing, snorkeling, and kayaking. MOP students often participate in tagging Green Sea Turtles in an on-going research program carried out in cooperation with the National Marine Fisheries Service, and also work with NOAA to respond to injured sea turtle rescue. MOP also sponsors seminars, films, field trips, and short courses on various marine-related subjects. All UH Hilo students are invited to take part in MOP-sponsored activities.

The Marine Science Summer Program

The [Marine Science Summer Program](#) has received the Excellence of Program Award from the Western Association of Summer Session Administrators, which represents some 80 colleges and universities in the western United States, Canada, and Mexico. Course offerings vary yearly and may include courses on marine mammals, marine reptiles, coral reef ecology, small boat handling, advanced oceanography

laboratory skills, and marine monitoring techniques. Summer courses in marine science combine classroom instruction with hands-on experience in the field and lab, and a primary goal of the program is to provide students with extensive personal attention.

QUEST

QUEST stands for Quantitative Underwater Ecological Surveying Techniques, which is a special summer course taught in May each year. QUEST is designed to train undergraduates in underwater ecological surveying methodologies, including the design, implementation and analysis of a research project, and incorporates instruction in the identification of the common seaweeds, corals, invertebrates, and fishes of Hawaiian reefs. This unique two-week course involves classroom instruction coupled with extensive practical instruction surveying coral reefs off the west coast of Hawai'i using SCUBA.

Curricula

- [B.A. in Marine Science Requirements](#)
- [B.S. in Marine Science Requirements](#)
- [Marine Science Minor](#)
- [Marine Option Program Certificate](#)
- [Marine Science \(MARE\) Courses](#)

B.A. in Marine Science Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (71-72 credits)

1. **Required Courses from Marine Science (32):**
 - MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1)
 - MARE 172 Marine Biology-Cellular Proc (3)
 - MARE 201-201L Oceanography (3), Oceanography Lab (2)
 - MARE 250 Statistical Apps in Marine Sci (3)
 - MARE 265 Marine Ecology and Evolution (3)
 - MARE 282 Global Change (3)
 - MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
 - And **one sequence** from the following:
 - MARE 470 Senior Thesis Research (3) **and** MARE 471 Senior Thesis Report (3)
 - MARE 480 Senior Internship (3) **plus** 3 credits of MARE electives at the 300- or 400-level
 - MARE 495 Senior Seminar (3) **plus** 3 credits of MARE



electives at the 300- or 400-level

2. **Required Courses from Related Fields (21-22):**

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- PHYS 151-151L College Physics I (3), College Physics I Lab (1)
- MATH 125 Applied Calculus (3) **or** MATH 205 Calculus I (4)
- COM 251 Public Speaking (3)
- ENG 225 Writing for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)

3. **Electives:** 9 credits of electives from Block I **and** 9 credits from Block II (18).

- *Block I:* Choose 9 credits from the following MARE courses, 6 of which must be 300- or 400-level

- MARE 240 Small Boat Operations/Research (3)
- MARE 264 Quest (3)
- MARE 310 The Atoll Ecosystem (3)
- MARE 325 Coral Reef Ecology (3)
- MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
- MARE 360 Marine Resources (3)
- MARE 364 Advanced Quest (3)
- MARE 366 Trop Marine Research Investiga (3)
- MARE 371-371L Biology Of Marine Invertebrate (3), Bio Of Marine Invertebrate Lab (1)
- MARE 372-372L Biology Of Marine Plants (3), Biology of Marine Plants Lab (1)
- MARE 390-390L Biology of Marine Mammals (3), Biol of Marine Mammals Lab (1)
- MARE 394 Special Topics in Subject Matter (To Be Arranged)
- MARE 405 Watersheds (3)
- MARE 410 Marine Debris in the Pacific (3)
- MARE 434 Teaching Marine Science (3)
- MARE 435 Marine Field Exper Tchrs (3)
- MARE 440 Physical Oceanography (3)
- MARE 444 Biological Oceanography (3)
- MARE 445 Marine Microbial Ecology (3)
- MARE 446 Phytoplankton (3)
- MARE 446L Phytoplankton Ecology Lab (2)
- MARE 460 Marine Conservation (3)
- MARE 461 Geological Oceanography (3)
- MARE 484 Biology Of Fishes (3)
- MARE 484L Biology Of Fishes Laboratory (1)
- MARE 488 Kuula: Integrated Science (3)
- MARE 490 Sea Turtle Conserv & Ecology (3)
- MARE 490L Sea Turtle Conserv & Ecol Lab (1)
- MARE 494 Special Topics in Subject Matter (To Be Arranged)

- *Block II:* Choose 9 credits from the following courses from related fields, 6 of which must be 300- or 400-level

- AG 215 Agro-Environmental Chemistry (3)
- AGECE 380 Environ Pol & Mgt Hawn Nat Res (3)
- AGEN 400 Aquaculture Engineering (4)
- ANTH 447 Marine Anth:Fishers in Oceania (3)
- AQUA 262 Intro Aquaculture (3)
- AQUA 352 Aquaculture of Fishes (3)
- AQUA 352L Aquaculture of Fishes Lab (1)
- AQUA 353 Invertebrate & Algae Culture (3)
- AQUA 353L Cultures of Invertebrates Lab (1)
- AQUA 425 Water Qual & Aquatic Product (3)
- AQUA 425L Water Qual & Aquatic Prod Lab (1)
- AQUA 466 Fisheries Science (3)

- BIOL 275 Fund Microbiology (3)
- BIOL 275L Microbiology Lab (1)
- BIOL 309 Biogeography (3)
- BIOL 357 Evolution (3)
- BIOL 357L Evolutionary Genetics Lab (1)
- BIOL 375 Biology of Microorganisms (3)
- BIOL 375L Biology of Microorganisms Lab (1)
- BIOL 376 Genetics (3) (Formerly offered as BIOL 466)
- BIOL 376L Genetics Lab (2) (Formerly offered as BIOL 466L)
- BIOL 381 Conservation Biology (3)
- BIOL 437 Marine Mammal Behavior (3)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 467 Ecological Genetics (3)
- CHEM 487 Environmental Toxicology (3)
- COM 344 Sustainability, Com & Culture (3)
- COM 352 Comm in Small Groups (3)
- COM 354 Comm in Innovation (3)
- COM 441 Leadership & Communication (3)
- COM 444 Public Relations (3)
- CS 200 Web Technology I (3)
- CS 300 Web Site Management (3)
- ECON 380 Natural Resource Env Eco (3)
- ENG 275 Literature of the Earth (3)
- ENG 387 Lit of the Environment (3)
- ENSC/GEOG 436 Environ Politics in Pacific (3)
- ENSC/GEOG 441 Environmentl Impact Assessment (3)
- GEOG 300 Climatology (3)
- GEOG 309 Biogeography (3)
- GEOG 319 Nat Hazards/Disasters (3)
- GEOG 326 Natural Resources (3)
- GEOG 331 Tourism Geographies (3)
- GEOG 340 Intro to Land Use Planning (3)
- GEOG 409 Principles of Landscape Ecology (3)
- GEOG 440 Community Planning (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOL 205 Geology Of Hawaiian Islands (3)
- GEOL 344 Coastal Geology (3)
- GEOL 360 Surface Water (3)
- GEOL 445 GIS for Geology (3)
- GEOL 460 Groundwater (3)
- HORT 263 Hydroponics (3)
- MATH 407 Intro To Numerical Analysis I (3)
- MATH 408 Intro To Numerical Analysis II (3)
- NRES 230 Philippines Environ & Nat Resou (3)
- NRES 410 Invasive Species & Ecosystems (3)
- NRES 420 Hydrology and Watershed Mgmt (3)
- NRES 425 Marine Biogeochemistry (3)
- NRES 430 GIS Application in Nat Res Mgt (3)
- NRES 455 Pac Climate Change Adaptation (3)
- PHIL 323 Professional Ethics (3)
- PHIL 390 History & Phil of Science (3)
- PHIL 392 Biology & Philosophy (3)
- POLS 342 International Law (3)
- PHIL 323 Professional Ethics (3)
- POLS 335 Envir Politics & Policy (3)
- PSY 323 Community Psychology (3)
- PSY 335 Animal Psychology (3)
- PSY 369 Evolutionary Psychology (3)
- PSY 422 Psychology of Sustainability (3)
- PSY 436 Animal Cognition (3)
- PSY 437 Marine Mammal Behavior (3)
- SOC 305 Org Theory & Analysis (3)



Total Semester Hours Required for the B.A. in Marine Science

120 credits required.

Notes

1. Students must earn a **minimum grade of "C-"** in all required courses and prerequisite courses.
2. The 300- and 400-level credits needed for graduation for all degrees in Marine Science are met in the process of completing the degrees.
3. To earn a Bachelor of Arts degree in Marine Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

B.S. in Marine Science Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (90 credits)

1. Required Courses from Marine Science (38)

- MARE 171-171L Marine Biology-Diversity (3), Marine Biology Laboratory (1)
- MARE 172 Marine Biology-Cellular Proc (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)
- MARE 250 Statistical Apps in Marine Sci (3)
- MARE 265 Marine Ecology and Evolution (3)
- MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
- MARE 425 Chemical Oceanography (3)
- MARE 440 Physical Oceanography (3)
- MARE 461 Geological Oceanography (3)
- And **one sequence** from the following:
 - MARE 470 Senior Thesis Research (3) **and** MARE 471 Senior Thesis Report (3)
 - MARE 480 Senior Internship (3) **plus** 3 credits of **MARE** electives at the 300- or 400-level

- MARE 495 Senior Seminar (3) **plus** 3 credits of MARE electives at the 300- or 400-level

2. Required Courses from Related Fields (43)

- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- GEOL 111 Understanding the Earth (3)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- MATH 205 Calculus I (4)
- MATH 206 Calculus II (4)
- COM 251 Public Speaking (3)
- ENG 225 Writng for Sci & Technology (3) **or** ENG 287 Introduction to Rhetoric (3)

3. Required Electives: Choose 9 credits from the following courses, 6 of which must be 300- or 400-level (9)

- MARE 240 Small Boat Operations/Research (3)
- MARE 264 Quest (3)
- MARE 282 Global Change (3)
- MARE 310 The Atoll Ecosystem (3)
- MARE 325 Coral Reef Ecology (3)
- MARE 350 Coastal Methods and Analyses (3) **or** MARE 353 Pelagic Methods and Analyses (3)
- MARE 360 Marine Resources (3)
- MARE 364 Advanced Quest (3)
- MARE 366 Trop Marine Research Investiga (3)
- MARE 371-371L Biology Of Marine Invertebrate (3), Bio Of Marine Invertebrate Lab (1)
- MARE 372-372L Biology Of Marine Plants (3), Biology of Marine Plants Lab (1)
- MARE 390-390L Biology of Marine Mammals (3), Biol of Marine Mammals Lab (1)
- MARE 394 Special Topics in Subject Matter (To Be Arranged)
- MARE 405 Watersheds (3)
- MARE 410 Marine Debris in the Pacific (3)
- MARE 434 Teaching Marine Science (3)
- MARE 435 Marine Field Exper Tchers (3)
- MARE 440 Physical Oceanography (3)
- MARE 444 Biological Oceanography (3)
- MARE 445 Marine Microbial Ecology (3)
- MARE 446 Phytoplankton (3)
- MARE 446L Phytoplankton Ecology Lab (2)
- MARE 460 Marine Conservation (3)
- MARE 484 Biology Of Fishes (3)
- MARE 484L Biology Of Fishes Laboratory (1)
- MARE 488 Kuula: Integrated Science (3)
- MARE 490-490L Sea Turtle Conserv & Ecology (3), Sea Turtle Conserv & Ecol Lab (1)
- MARE 494 Special Topics in Subject Matter (To Be Arranged)
- AGEN 400 Aquaculture Engineering (4)
- AQUA 262 Intro Aquaculture (3)
- AQUA 425-425L Water Qual & Aquatic Product (3), Water Qual & Aquatic Prod Lab (1)
- AQUA 466 Fisheries Science (3)
- ECON 380 Natural Resource Env Eco (3)
- GEOG 340 Intro to Land Use Planning (3)
- GEOG 440 Community Planning (3)
- GEOG 470 Remote Sensing/Air Photo (3)
- GEOG 480 Geog Info Sys & Visualization (3)
- GEOL 344 Coastal Geology (3)



- POLS 335 Envir Politics & Policy (3)

Total Semester Hours Required for the B.S. in Marine Science

120 credits required.

Notes

1. Students must earn a **minimum grade of "C-"** in all required courses and prerequisite courses.
2. 9 credits are required at the 300- or 400-level for graduation with a B.S. degree in Marine Science.
3. To earn a Bachelor of Science degree in Marine Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Marine Science Minor

The minor offers a broad exposure to Marine Science with a biological orientation and is desirable for:

- Teaching; for example, in conjunction with the Natural Sciences degree.
- Marine ecotourism or marine recreation careers; for example, in conjunction with a major in Anthropology, Business Administration, Economics, Geography, or Hawaiian Studies.
- Graduate school preparation in a specialized branch of a primary science with an emphasis in Marine Science; for example, in conjunction with a degree in Biology, Chemistry, Geology, or Physics

Requirements (27 credits):

1. **Required Courses from Marine Science (15):**
 - MARE 171 Marine Biology-Diversity (3)
 - MARE 172 Marine Biology-Cellular Proc (3)
 - MARE 201 Oceanography (3)
 - MARE 265 Marine Ecology and Evolution (3)
 - MARE 282 Global Change (3)
2. **Electives:** choose 12 credits from the following courses
 - MARE 240 Small Boat Operations/Research (3)
 - MARE 264 Quest (3)
 - MARE 310 The Atoll Ecosystem (3)
 - MARE 325 Coral Reef Ecology (3)
 - MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2) **or** MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)
 - MARE 360 Marine Resources (3)
 - MARE 364 Advanced Quest (3)
 - MARE 366 Trop Marine Research Investiga (3)
 - MARE 371-371L Biology Of Marine Invertebrate (3), Bio Of Marine Invertebrate Lab (1)
 - MARE 372-372L Biology Of Marine Plants (3), Biology of Marine Plants Lab (1)
 - MARE 390-390L Biology of Marine Mammals (3), Biol of Marine

Mammals Lab (1)

- MARE 394 Special Topics in Subject Matter (To Be Arranged)
- MARE 405 Watersheds (3)
- MARE 410 Marine Debris in the Pacific (3)
- MARE 425 Chemical Oceanography (3)
- MARE 434 Teaching Marine Science (3)
- MARE 435 Marine Field Exper Tchers (3)
- MARE 440 Physical Oceanography (3)
- MARE 444 Biological Oceanography (3)
- MARE 445 Marine Microbial Ecology (3)
- MARE 446 Phytoplankton (3)
- MARE 446L Phytoplankton Ecology Lab (2)
- MARE 460 Marine Conservation (3)
- MARE 461 Geological Oceanography (3)
- MARE 484 Biology Of Fishes (3)
- MARE 484L Biology Of Fishes Laboratory (1)
- MARE 488 Kuula: Integrated Science (3)
- MARE 490-490L Sea Turtle Conserv & Ecology (3), Sea Turtle Conserv & Ecol Lab (1)
- MARE 494 Special Topics in Subject Matter (To Be Arranged)

Marine Option Program Certificate

Coordinator: Lisa B. Parr

Email: lparr@hawaii.edu

Website: uhhmop.hawaii.edu

The Marine Option Program (MOP) offers a certificate for students of all majors at UH Hilo. Students in art can do a marine related piece of art or underwater photography of marine species for science or art. Or students in aquaculture can do a project with a marine emphasis, such as aquarium fish culturing to fish farming. Students of other majors such as computer science have done projects on databases related to oceanography data. MOP also oversees the sea turtle stranding program in East Hawai'i. The program is the only system wide certificate program offered and emphasizes intercampus involvement. MOP is currently on Kaua'i, O'ahu, Maui and the Big Island. Students from the different campuses gather regularly for QUEST, MAST (Maritime Archaeology Symposium and field school) and the annual symposium, as well as shared resources such as Kaho'olawe surveys, Turtle Tagging, Moloka'i fish pond work and other projects.

Mission

The mission of the Marine Option Program is to provide a unique opportunity for undergraduates in any field of study who have an interest in the ocean. It is open to students in all fields and provides a clearinghouse for marine-oriented education and employment opportunities as well as a chance for students to network with professionals and fellow students who are involved with the ocean.

Program Learning Outcomes

The Marine Option Program strives to:

1. Provide an opportunity for undergraduate students in any discipline to acquire a marine orientation during his/her residency at UH Hilo
2. Add focus and relevance to the academic marine courses by aiding the students in acquiring a practical "marine skill";
3. Help each MOP student, through counseling, discover and implement his/her individual marine-oriented educational career goals;
4. Provide special seminars and interdisciplinary courses designed to acquaint the undergraduate student with the many facets of marine



- affairs; and
5. Provide opportunities and guidance to students who wish to contribute their talents by working toward solutions for social and environmental ocean-related problems.

Student Learning Outcomes

Upon completing the Marine Option Program Certificate, students will be able to:

1. Write a formal scientific proposal that includes a literature review, project objectives, a methodology and a section discussing proposed deliverables
2. Give an oral presentation of the proposal
3. Conduct a marine skills project that includes a collection of materials or data, following proposed activities, and completing of project including analyses.
4. Develop and deliver a scientific presentation in both oral and poster format

Curriculum

Requirements (14 credits):

1. **Required Courses (5)**
 - o MARE 100 Marine Option Program Seminar (1)
 - o MARE 104 Marine Option Program Project (2) (Repeated Once)
2. **Survey class (3)**
 - o MARE 140 Intro to Hawaiian Coral Reefs (3) **or** MARE 171 Marine Biology-Diversity (3) **or** MARE 201 Oceanography (3)
3. **Electives (6).** Any marine-related course approved by the MOP faculty advisor.
4. **Skills project or internship.** This must be approved by the MOP faculty advisor.

Mathematics

Department Chair: Efren Ruiz, Ph.D.

Email: ruize@hawaii.edu

Natural Sciences Division Office:

Office: Life Sciences, Room 2

Tel: (808) 932-7506/7507

Website: hilo.hawaii.edu/academics/math/

Professors:

- Mitchell Anderson, Ph.D.
- Raina Ivanova, Ph.D.
- Shuguang Li, Ph.D.
- Efren Ruiz, Ph.D.

Associate Professors:

- Ramón Figueroa-Centeno, Ph.D.
- Roberto Pelayo, Ph.D.
- Brian Wissman, Ph.D.

Assistant Professor:

- Grady Weyenberg, Ph.D.

Instructors:

- Erica Bernstein, Ph.D.
- Zorana Lazarevic, Ph.D.
- Aaron Tresham, M.S.
- Zinat Rahman, M.S.

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 or careers in mathematics education. Applications may be pursued in such areas as systems theory, graph theory, number theory, statistics, and geometry, 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.

The B.A. in Mathematics is offered through two tracks, the Traditional and the Teaching track. Each track requires two years of calculus and one semester each of discrete math and linear algebra. The traditional track includes one-year sequences in the classical areas of modern algebra and real analysis, and students completing this track are particularly well prepared for graduate study. The teaching track includes a one-year sequence in probability and statistics, consistent with recent National Council of Teachers of Mathematics standards, as well as one semester each in real analysis, geometry, and modern algebra. Students completing this broad curriculum are well prepared to teach all areas of intermediate and secondary math.

Mission

The instructional mission of the Mathematics Department is threefold:

- First, the major program is designed to prepare its students for successful careers in secondary education and other areas requiring a strong foundation in mathematics, or for success at the graduate level, either in mathematics or a related discipline. The degree is intended to familiarize students with a wide range of areas within the field of mathematics, and to instill in them an appreciation for the rigor and structure of the discipline.
- Second, the Math Department provides extensive support to those departments requiring mathematics content for their majors, particularly those in the Natural Sciences.
- Third, the Department services non-science majors by offering a limited selection of courses that are designed to introduce the students to the fundamental concepts that constitute classical and contemporary mathematics.

Program Goals

Graduating majors in the Traditional Track should be able to:

- Outcome 1 (Knowledge): Demonstrate mastery of the core material found in single and multi-variable Calculus and Linear Algebra.
- Outcome 2 (Knowledge): Demonstrate mastery of the core concepts in Abstract Algebra and Real Analysis.
- Outcome 3 (Comprehension): Identify, compare, and contrast the fundamental concepts within and across the major areas of mathematics, with particular emphasis on Linear Algebra, Abstract Algebra, and Real Analysis.
- Outcome 4 (Reasoning): Use a variety of theorem-proving techniques to prove mathematical results.
- Outcome 5 (Communication): Demonstrate the abilities to read and articulate mathematics verbally and in writing.

Graduating majors in the Teaching Track should be able to:



- Outcome 1 (Knowledge): Demonstrate mastery of the core material found in single and multi-variable Calculus and Linear Algebra.
- Outcome 2 (Knowledge): Demonstrate mastery of the core concepts in Abstract Algebra, Real Analysis, Probability, and Statistics.
- Outcome 3 (Comprehension): Identify, compare, and contrast the fundamental concepts within and across the major areas of mathematics, including Linear Algebra, Abstract Algebra, Real Analysis, Geometry, Probability, and Statistics.
- Outcome 4 (Reasoning): Use a variety of theorem-proving techniques to prove mathematical results.
- Outcome 5 (Communication): Demonstrate the abilities to read and articulate mathematics verbally and in writing.
- Outcome 6 (Application): Demonstrate a level of mathematical sophistication consistent with the ability to develop and deliver all pre-college mathematics.
- Outcome 7 (Technology): Demonstrate an ability to appropriately use technology in the problem-solving process, including graphing calculators and CAS, and secondarily spreadsheets, statistical software, and proprietary software such as sketchpad.

Goals for Student Learning in the Major

As a result of having majored in mathematics, students are expected to develop:

- A general understanding of the different areas of mathematics and how they interrelate, and the importance of mathematics in a scientifically-oriented society;
- Classical theorem-proving skills, which include the ability to reason mathematically and to apply the rigor necessary to construct proofs;
- A refined understanding of the problem-solving process;
- The ability to independently develop and deliver all pre-college math curriculum, if the professional goal is teaching;
- A working knowledge of technology appropriate to the field;
- The skills necessary to:
 - Read, write, translate, and articulate mathematically-related material,
 - Solve problems using a variety of techniques, including algebraic, numerical, and spatial reasoning through visualization (e.g. graphically),
 - Make inferences and generalizations.

Contributions to the General Education Program

All lower-division mathematics courses (**except MATH 103 Intro to College Algebra (3), MATH 199 Directed Studies (To Be Arranged), and MATH 299 Directed Studies (To Be Arranged)**) satisfy the CAS General Education “quantitative and logical reasoning” requirements. Students who have fulfilled this General Education requirement should have developed an appreciation for the applicability of mathematical concepts and techniques to contemporary society.

Special Aspects of the Mathematics Program

The Math Center

College Hall, Room 5 Tel: (808) 932-7531

The Math Center offers free, walk-in tutoring to all students needing help with mathematics (through Calculus I) or with mathematical concepts from other areas. The trained peer tutors have demonstrated a strong understanding of mathematics and a desire to share what they have learned with others.

Students working in the Math Center can use the Center's PCs with access to MINITAB software as well as access the campus wireless network if they prefer to work on their own laptops. The Math Center also provides students access to a quiet study area where they can work independently or in small groups, work on homework, and study for exams.

For more information please visit the Kilohana Math Center website.

Curricula

- [B.A. in Mathematics Requirements](#)
- [STEM Research Honors Certificate Program](#)
- [Mathematics Minor](#)
- [Mathematics \(MATH\) Courses](#)

B.A. in Mathematics Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (37-39 credits)

1. **Track One, Traditional (for students planning graduate work in mathematics or careers in science or technology).**
 - MATH 205-206 Calculus I (4), Calculus II (4)
 - MATH 231-232 Calculus III (3), Calculus IV (3)
 - MATH 310 Discrete Mathematics (3)
 - MATH 311 Intro Linear Algebra (3)
 - MATH 431-432 Real Analysis I (4), Real Analysis II (4)
 - MATH 454-455 Modern Algebra I (3), Modern Algebra II (3)
 - And **3 additional credits** of 300- or 400-level [mathematics courses](#), not including MATH 496 Tchg Assist & Tutoring Math (1-3)
2. **Track Two, Teaching (for students planning to teach mathematics).**
 - MATH 205-206 Calculus I (4), Calculus II (4)
 - MATH 231-232 Calculus III (3), Calculus IV (3)
 - MATH 310 Discrete Mathematics (3)
 - MATH 311 Intro Linear Algebra (3)
 - MATH 421 Elem Probability Theory (3)
 - MATH 422 Elementary Math Statistics (3)
 - MATH 431 Real Analysis I (4)
 - MATH 441 Geometry I (3)
 - MATH 454 Modern Algebra I (3)
 - MATH 496 Tchg Assist & Tutoring Math (1-3) (See note #2)



Total Semester Hours Required for the B.A. in Mathematics

120 credits required.

Notes

1. Students should take MATH 310 Discrete Mathematics (3) as soon as possible after completing MATH 206 Calculus II (4) to make timely progress.
2. Students in the Teaching Track are required to take 3 credits of MATH 496 Tchg Assist & Tutoring Math (1-3) to graduate. MATH 496 is a variable credit courses and may be taken for 1-3 credits. Students are allowed to repeat MATH 496 multiple times in order to reach the minimum of 3 credits required for graduation.
3. Students must earn at least a 2.0 cumulative GPA in courses required for the major.
4. At least 45 credits must be earned in courses at the 300- and 400-level.
5. To earn a Bachelor of Arts degree in Mathematics, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
6. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
7. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
8. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Mathematics Minor

The Mathematics Minor emphasizes the development of logical and quantitative thinking skills that are gained in studying mathematics. From a core set of calculus classes, you'll choose from a wide breadth of upper division mathematics electives. The Mathematics minor complements a variety of majors, including those from the natural sciences and business.

Requirements (26 credits):

- MATH 205-206 Calculus I (4), Calculus II (4)
- MATH 231-232 Calculus III (3), Calculus IV (3)
- And at least **12 credits** of additional [MATH courses](#) at the 300- or 400-level.

STEM Research Honors Certificate Program

Contact: Dr. Raina 'Reni' Ivanova, Ph. D.
STEM Research Honors Program Director

Office Location CH-8B

Email: rivanova@hawaii.edu

Website: <https://hilo.hawaii.edu/academics/stem-honors/index.php>

The STEM Research Honors Certificate Program will expose students from all Natural Science departments and programs to the highest academic standards and provide them with guidance, academic mentorship, and opportunities to participate in advanced modern research. The total number of credits required for the Program varies by

major (see table below).

Mission

The STEM Research Honors Certificate Program promotes academic excellence and provides exceptional undergraduate students from all mathematics and science majors the opportunity to participate in collaborative research or conduct their own research under the guidance of a mentor.

Program Learning Outcomes

The STEM Research Honors Certificate Program promotes the following skills:

1. (Knowledge): Demonstrate mastery of the core material in mathematics and their major discipline
2. (Knowledge): Demonstrate mastery of advanced concepts in their major discipline
3. (Reasoning): Use a variety of scientific techniques to collect data, analyze it, and test hypotheses.
4. (Reasoning): Analyze research activities in terms of where they fit within the scientific method
5. (Communication): Articulate, both verbally and in writing, the purpose, methods, findings, and significance of their research

Student Learning Outcomes

STEM Research Honors Certificate Program graduates should be able to:

1. Conduct original research or engage in applications of prior research
2. Prepare a formal research proposal
3. Report their findings in a manuscript
4. Present their results in the STEM Honors Research Symposium

Curricula

Requirements for the STEM Research Honors Certificate Program:

1. Required Courses
 - MATH 205 Calculus I (4)
 - MATH 206 Calculus II (4)
 - 3-8 credits of major core courses for their major only (see list below)
 - Major 399 (3)
 - Major 499 (3)
 - HON 495 Honors Research Symposium (1)
2. Overall GPA of 3.75 or higher

Biology (8)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 270-270L Intermed Cell & Molecular Biol (3), Inter Cell & Molecular Bio Lab (1)

Chemistry (8)

- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)



Computer Science (3)

- CS 321 Data Structures (3)

Environmental Sciences (3)

- ENSC 385 Fld Meth in Geog & Environ Sci (3)

Geology (7 or 8)

- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- and either:
 - GEOL 212 Earth Materials I: Minerals (4), **or**
 - GEOL 330 Deformation of the Earth (4)

Marine Science (8)

- MARE 265 Marine Ecology and Evolution (3)
- and either:
 - MARE 350-350L Coastal Methods and Analyses (3), Coastal Methods & Analyses Lab (2), **or**
 - MARE 353-353L Pelagic Methods and Analyses (3), Pelagic Methods & Analyses Lab (2)

Note: In Marine Science, MARE 470 Senior Thesis Research (3) and MARE 471 Senior Thesis Report (3) will substitute for Major 399 Independent Study (3) and Major 499 Independent Study (3)

Mathematics (6)

- MATH 231 Calculus III (3)
- MATH 232 Calculus IV (3)

Physics & Astronomy (6)

- **Physics:**
 - PHYS 274 Gen Phys III: Intro Modern Phy (3)
 - PHYS 331 Optics (3)
- **Astronomy:**
 - PHYS 274 Gen Phys III: Intro Modern Phy (3)
 - ASTR 350 Stellar Astrophysics (3)

Total number of semester hours required (by major):

Major	Total Credits
Biology	23
Chemistry	23
Computer Science	18
Environmental Science	18
Geology	23
Marine Science	23
Mathematics	21
Physics and Astronomy	21

Natural Science

Program Chair: Jené Michaud, Ph.D.

Email: jene@hawaii.edu

Natural Sciences Division Office:

Office: Life Sciences, Room 2

Tel: (808) 932-7506/7507

Website: hilo.hawaii.edu/academics/natural-science/

Area Advisors:

- Steven Lundblad, Ph.D., Geology/Earth Science
- Jené Michaud, Ph.D., Geology
- Jon-Pierre Michaud, Ph.D., Chemistry
- Cedric Muir, Ph.D., Biology
- Marianne Takamiya, Ph.D., Physics

The interdisciplinary Natural Science program prepares students for careers that require a broad background in science fundamentals. The degree was designed for students that wish to teach science at the intermediate level or in rural high schools. The program also provides training for students with broad interests who intend to pursue non-teaching careers in interdisciplinary arenas.

Students in the Natural Science program take foundational courses in biology, chemistry, physics, and earth science. They then take additional advanced courses in one of these disciplines. This gives students an area of specialization. The curriculum is aligned with the competency requirements of the National Science Teachers Association. Graduates of the Natural Science program meet the subject matter entrance requirements of the UH-Hilo [Master of Arts in Teaching](#) program, which leads to licensure as a secondary science teacher. It is also possible to earn a Subject Certificate in [Educational Studies](#) while pursuing a bachelors degree in Natural Science.

Goals for Student Learning in the Major

The primary educational objective of the Natural Science program is the development of a solid foundation in the concepts, goals, methods, and societal relevance of the basic sciences, and advanced competency in either biology, biology chemistry, physics, or earth/space science.

Students can expect to deepen their knowledge through hands-on laboratory investigations, to develop observational and experimental skills, and become familiar with safety protocols appropriate to teaching laboratories. Students will develop critical thinking skills and a more detailed understanding of scientific concepts in their area of concentration, and through completion of upper division coursework in science subjects outside of their concentration. Students will be able to communicate their knowledge, orally and in writing, to a variety of audiences.

Special Aspects of the Program

UH Hilo is surrounded by tropical ecosystems, world-class astronomy observatories, active volcanoes, and tropical coral reefs. Some courses in the Natural Science program emphasize field trips that use Hilo's extraordinary location as a "living laboratory." The plants, animals, volcanoes, ocean, and observatories of the Big Island are unique and bring to life the study of biology, geology, oceanography, and astronomy.

Curriculum

- [B.A. in Natural Science Requirements](#)
- [Natural Sciences \(NSCI\) Courses](#)

**B.A. in Natural Science Requirements****Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011**

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements

Choose one of the following four tracks.

A. Biology Track (69-72 credits)**1. Science Foundation for Biology Track (41-44 credits)**

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- BIOL 280 Biostatistics (3)
- MATH 125 Applied Calculus (3) or MATH 205 Calculus I (4)
- **One** of the following sequences:
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1) **and** PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
 - PHYS 151-151L College Physics I (3), College Physics I Lab (1) **and** PHYS 152-152L College Physics II (3), College Physics II Lab (1)
- NSCI 476 Communicating Science (3)

2. Biology Focus (19 credits)

- BIOL 125 Intro Cell & Molecular Biol (3) **or** BIOL 270 Intermed Cell & Molecular Biol (3)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
- BIOL 281 General Ecology (3)
- BIOL 357 Evolution (3)
- **Two courses** selected from:
 - AG 304 Applied Microbiology (3)
 - AG 375 Intro To Genetic Analysis (3)
 - BIOL 371 Biology Of Marine Invertebrate (3)
 - BIOL 417 Plant Anatomy (4)
 - BIOL 443 Ecological Animal Physiology (3)

- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 457 Vegetation of the Hawaiian Isl (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 477 Avian Biology (3)
- ENTO 304 General Entomology (3)
- PPTH 301 Trop Plant Pathology (3)

3. Allied Science Electives for Biology Track (9 credits)

Three additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 381 Conservation Biology (3)
- BIOL 417 Plant Anatomy (4)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 445 Behavioral Ecology & Evolution (3)
- BIOL 455 Plant Ecology (3)
- BIOL 457 Vegetation of the Hawaiian Isl (3)
- BIOL 460 Plant Diversity & Evolution (3)
- BIOL 467 Ecological Genetics (3)
- BIOL 477 Avian Biology (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- ENSC 301 Global Warming/Climate Change (3)
- ENTO 304 General Entomology (3)
- GEOG 300 Climatology (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- PPTH 301 Trop Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- One of the three required Allied Science Electives may be selected from the following:
 - ED 310 Foundations of Education (3)
 - ED 350 Developmntl Concepts Of Learnng (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 329 Environmental Ethics (3)
 - PHIL 412 Philosophy of Nature (3)

B. Chemistry Track (70-73 credits)**1. Science Foundation for Chemistry Track (43 credits)**

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II



Lab (1)

- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- MATH 121 Intro Stats & Prob (3)
- MATH 125 Applied Calculus (3) **or** MATH 205 Calculus I (4)
- **One** of the following sequences:
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1), PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
 - PHYS 151-151L College Physics I (3), College Physics I Lab (1), PHYS 152-152L College Physics II (3), College Physics II Lab (1)
- NSCI 476 Communicating Science (3)

2. Chemistry Focus (20 credits)

- CHEM 141 Surv Organ Chem & Biochem (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- CHEM 320 Descriptive Inorganic Chem (3)
- **One course** selected from:
 - BIOL 125 Intro Cell & Molecular Biol (3)
 - CHEM 241 Organic Chem I (3)
- **One** selected from:
 - AQUA 425 Water Qual & Aquatic Product (3)
 - CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
 - ENSC 301 Global Warming/Climate Change (3)

3. Allied Science Electives for Chemistry Track (9 credits),

Choose **three** additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 357 Evolution (3)
- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 417 Plant Anatomy (4)
- BIOL 443 Ecological Animal Physiology (3)
- BIOL 467 Ecological Genetics (3)
- CHEM 431-431L Instrumental Analysis (2), Instrumental Analysis Lab (2)
- CHEM 487 Environmental Toxicology (3)
- ENSC 301 Global Warming/Climate Change (3)
- ENTO 304 General Entomology (3)
- GEOG 300 Climatology (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- PPTH 301 Trop Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- **One** of the three courses may be selected from the following:
 - ED 310 Foundations of Education (3)
 - ED 350 Developmntl Concppts Of Learnng (3)

- PHIL 316 Science, Technology & Values (3)
- PHIL 329 Environmental Ethics (3)
- PHIL 412 Philosophy of Nature (3)

C. Earth Science Track (74-77 credits)

1. Science Foundation for Earth Science Track (41-44 credits)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- MATH 121 Intro Stats & Prob (3)
- MATH 125 Applied Calculus (3) **or** MATH 205 Calculus I (4)
- **One** of the following sequences:
 - PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1), PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
 - PHYS 151-151L College Physics I (3), College Physics I Lab (1), PHYS 152-152L College Physics II (3), College Physics II Lab (1)
- NSCI 476 Communicating Science (3)

2. Earth Science Focus (24 credits)

- ASTR 110L Gen Astronomy Lab (1)
- ASTR 180 Princ Of Astron I (3)
- ASTR 181 Princ Of Astron II (3)
- GEOG 300 Climatology (3)
- GEOL 205 Geology Of Hawaiian Islands (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- MARE 201-201L Oceanography (3), Oceanography Lab (2)
- **One course** selected from:
 - GEOG 319 Nat Hazards/Disasters (3)
 - GEOL 330 Deformation of the Earth (4)
 - GEOL 340 Sedimentary Processes (4)
 - GEOL 342 Earth Surface Processes (3)
 - GEOL 344 Coastal Geology (3)
 - GEOL 352 Comparative Planetology (3)/ASTR 352 Plants and Exoplanets (3)
 - GEOL 360 Surface Water (3)
 - GEOL 431 Geology Of North America (3)
 - GEOL 432 Plate Tectonics (3)
 - GEOL 460 Groundwater (3)
 - SOIL 304 Tropical Soils (3)

3. Allied Science Electives for Earth Science Track (9 credits),

Choose **three** additional courses selected from:

- AG 304 Applied Microbiology (3)
- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 357 Evolution (3)
- BIOL 467 Ecological Genetics (3)



- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 417 Plant Anatomy (4)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- ENSC 301 Global Warming/Climate Change (3)
- ENTO 304 General Entomology (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- **One** of the three courses may be selected from the following:
 - ED 310 Foundations of Education (3)
 - ED 350 Developmntl Concppts Of Learnng (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 329 Environmental Ethics (3)
 - PHIL 412 Philosophy of Nature (3)

D. Physics Track (73 credits)

1. Science Foundation for Physics Track (44 credits)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- GEOL 111-111L Understanding the Earth (3), Understanding the Earth Lab (1)
- GEOL 112-112L Hist of the Earth & Its Life (3), History of the Earth Lab (1)
- MATH 121 Intro Stats & Prob (3)
- MATH 205 Calculus I (4)
- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- NSCI 476 Communicating Science (3)

2. Physics Focus (23 credits)

- MATH 206 Calculus II (4)
- MATH 231 Calculus III (3)
- MATH 300 Ordinary Diff Equations (3)
- PHYS 274 Gen Phys III: Intro Modern Phy (3)
- PHYS 371 Classical Mechanics (3)
- **One course** selected from:
 - PHYS 211 Electronics (4)
 - PHYS 230 Applied Electronics (4)
- **One course** selected from:
 - PHYS 330 Electromagnetism (3)
 - PHYS 331 Optics (3)
 - PHYS 341 Thermodynamics (3)
 - PHYS 360 Mathematical Physics (3)

3. Allied Science Electives for Physics Track (6 credits), Choose two additional courses selected from:

- AG 304 Applied Microbiology (3)

- AG 375 Intro To Genetic Analysis (3)
- ANTH 481 Archaeometry (3)
- ANTH 484 Stone Tool Analysis (3)
- AQUA 425 Water Qual & Aquatic Product (3)
- BIOL 357 Evolution (3)
- BIOL 371 Biology Of Marine Invertebrate (3)
- BIOL 417 Plant Anatomy (4)
- BIOL 467 Ecological Genetics (3)
- CHEM 274-274L Principles of Analytical Chem (3), Princ Analytical Chem Lab (2)
- CHEM 360 Environmental Chemistry (3)
- ENSC 301 Global Warming/Climate Change (3)
- ENTO 304 General Entomology (3)
- GEOG 300 Climatology (3)
- GEOL 300 Adv Environmental Earth Sci (3)
- GEOL 342 Earth Surface Processes (3)
- GEOL 431 Geology Of North America (3)
- GEOL 432 Plate Tectonics (3)
- GEOL 445 GIS for Geology (3)
- GEOL 450 Geological Remote Sensing (3)
- GEOL 460 Groundwater (3)
- GEOL 472 Volcano Seismology & Geodesy (3)
- PHYS 330 Electromagnetism (3)
- PHYS 331 Optics (3)
- PHYS 341 Thermodynamics (3)
- PHYS 360 Mathematical Physics (3)
- PPTH 301 Trop Plant Pathology (3)
- SOIL 304 Tropical Soils (3)
- **One** of the two courses may be selected from the following:
 - ED 310 Foundations of Education (3)
 - ED 350 Developmntl Concppts Of Learnng (3)
 - PHIL 316 Science, Technology & Values (3)
 - PHIL 329 Environmental Ethics (3)
 - PHIL 412 Philosophy of Nature (3)

Minimum number of upper division credits for Biology, Chemistry, Earth Science tracks: 24 credits; 21 credits for Physics track

Total Semester Hours Required for the B.A. in Natural Science

120 credits required.

Notes

1. To earn a Bachelor of Arts degree in Natural Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
2. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
3. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
4. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**



Nursing - School of Nursing

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Professors:

- Katharyn Daub, Ed.D., RN, CTN-A, CLNC, CNE
- Alice Davis, Ph.D., APRN

Associate Professors:

- Joan Thompson Pagan, PhD, CNE, APRN, NNP, MSN, RNC

Assistant Professors:

- Jeannette Ayers-Kawakami, MSN, RN
- Patricia Hensley, Ph.D.
- Chenit Ong-Flaherty, DNP
- Kimberly Shmina, DNP
- Tracy Thornett, DNP, FNP-C, RN
- Diane Van Hoose, MSN, RN

Laboratory Coordinator:

- Hazel Reece

Mission

The School of Nursing supports the mission of the University of Hawai'i at Hilo in providing a learning environment that is responsive to the needs of a diverse student population and that stresses rigorous high quality education in a caring, personalized atmosphere. This educational experience encourages student-faculty interactions and offers hands-on learning and leadership opportunities. The Nursing Program emphasizes lifelong learning and how to deliver culturally congruent nursing care in a rural environment. The UH Hilo B.S.N. mission is summarized below:

C—Culturally congruent care

A—Active learning, critical thinking

R—Responsive to needs of diverse students and communities

I—Invested in quality and research

N—Nursing professionalism

G—Global peace

Program Goals

The program is committed to the following:

- Providing quality nursing education with a strong focus on transcultural caring and an emphasis on critical thinking skills;
- Maintaining currency with nursing practices and standards in the delivery of therapeutic nursing care to individuals, families and communities;
- Developing effective communication skills that are congruent with cultural values and beliefs
- Fostering community engagement through service and research projects which develops skills in collaboration, resource management and program development;

- Satisfactorily meeting the needs of students as well as those of clients and employers.
- Encouraging lifelong learning

The Baccalaureate Nursing Program prepares students for careers in professional nursing. The UH Hilo School of Nursing is approved by the Hawai'i State Board of Nursing and accredited by the National League of Nursing Accrediting Commission. The B.S.N. degree will be granted by UH Hilo upon the recommendation of nursing faculty to those students who have successfully completed the prescribed curriculum.

Goals for Student Learning in the Major

The baccalaureate nursing graduate will be able to function at the beginning practice level skills:

- Organizes and prioritizes transcultural nursing care for individuals, families, and communities using the nursing process by demonstrating clinical proficiency in the delivery of care
- Uses critical thinking to provide therapeutic nursing care derived from current research and recognized state and national (professional) standards
- Communicates effectively with healthcare providers and consumers in order to assess, plan, implement and evaluate health care
- Advocates for positive changes in the health care delivery system in partnership with the community
- Provides culturally congruent health education to a diverse population

As a manager of care, a baccalaureate nursing graduate will be able to

- manage care of individuals, families, and communities with complex health problems using current, research based nursing practices
- collaborate with other professionals to provide preventive health education and research-based interventions to promote, maintain, and restore health to clients of all age groups and varied cultures
- involve others in meeting the health needs and nursing goals with the leadership and management roles
- foster engagement through community and research activities which develop skills in collaboration, resource management, and program development

As a participant investigator, a baccalaureate nursing graduate will be able to

- integrate theory, knowledge, and experiences gained from general education and nursing courses in refining critical thinking skills
- read, interpret, and evaluate nursing research and begin to apply the knowledge and/or findings to nursing practice
- begin to be involved in research activities, especially within the community

As a member of the profession, a baccalaureate nursing graduate will be able to

- assume personal responsibility for professional growth, such as membership in nursing organizations, attendance at professional meetings, or reading professional literature
- administer nursing care in an ethical and legal manner in accordance with accepted state and national nursing standards
- incorporate leadership skills to effect change to enhance the health of individuals, families, and communities and improve the health care delivery system

As a promoter of transcultural caring, a baccalaureate nursing graduate



will be able to

- identify the caring values, beliefs, and practices of health and illness and work with individuals, families, and communities to provide competent culturally congruent health care

Curricula

- [BSN Program Options](#)
- [Health Care Administration Certificate](#)
- [Academic Regulations for Nursing](#)
- [B.S. in Nursing Requirements](#)
- [Nursing \(NURS\) Courses](#)

BSN Program Options

Students have two program options to earn the Bachelor of Science degree in Nursing. Option 1 is for the basic student. Option 2 is for the returning R.N. who wishes to acquire the bachelor's degree.

Option 1: Students may enter the Basic B.S.N. program, whereby two years are spent fulfilling UH Hilo [General Education](#) and pre-nursing or pre-core requirements. Nursing courses are introduced in the third year after formal admission into the Nursing program on a competitive basis (See [B.S.N. admissions criteria](#).)

Option 2: The R.N. to B.S.N. program provides the candidate the opportunity for educational and professional advancement. Students may enter the R.N. to B.S.N. program only if they have a current Hawai'i R.N. license and have been formally admitted into the upper-division nursing program (see [B.S.N. admission criteria](#)). Students may elect to complete the program on a part-time or full-time basis. NURS 410-410L Community Health Care (2), Community Hlt Care Practicum (3) are offered on alternating years with NURS 361 BSN Nursing Preview (3), NURS 362 Nursing Professional Writing (1), and NURS 457-457L Collaborative Hlt Care, Ldrshp (3), Collaborative Hlt Care Practic (2). Part-time students are expected to take all non-clinical courses prior to taking courses that include practica. **Regular advisement with faculty is critical for successful completion of requirements for graduation.**

- **Fall Semester** (14 credits)
 - NURS 347-347L Health Assessment (3), Hlt Assessment Practicum (1)
 - NURS 350 Transcultural Care & Hlth Prom (3)
 - NURS 358 Nursing Research (3)
 - NURS 362 Nursing Professional Writing (1)
 - NURS Elective (3)
- **Spring Semester** (16 credits)
 - NURS 361 BSN Nursing Preview (3)
 - NURS 375 Applied Human Nutrition (3)
 - NURS 410-410L Community Health Care (2), Community Hlt Care Practicum (3)
 - NURS 457-457L Collaborative Hlt Care, Ldrshp (3), Collaborative Hlt Care Practic (2)

Note: RN/BSN students must meet the UH Hilo residence requirement of 30 credits from UH Hilo.

R.N. to B.S.N. Distributed Learning (DL) Program

A Distributed Learning program is being implemented to help R.N. students in distant sites to access the B.S.N. program. This DL program will be expanded according to student needs and resource support.

Contact the School of Nursing for more information.

NLN ACE II Test Requirement for RN's without an Associate Degree

Diploma and foreign nursing degree candidates are required to take the National League for Nursing Acceleration Challenge Exam II prior to entering the program. Consult with the Nursing advisor for help in arranging for proctored testing.

Academic Regulations for Nursing

To earn the B.S.N. degree a student must satisfy the prerequisite, co-requisite, and nursing course requirements for the B.S.N. degree as specified in the UH Hilo Catalog and B.S.N. brochure in effect at the time of the student's initial enrollment in the Nursing program. Once admitted into the upper-division Nursing program, students are expected to complete the Nursing program in two years. Students who do not graduate within this period will be subject to review. 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 Basic Baccalaureate Nursing program after completing prerequisite courses. Admission is on a competitive, space-available basis.

The criteria for admission to the Nursing program are as follows:

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. A 2.7 cumulative college grade point average (GPA)
4. A 3.0 minimum cumulative GPA for all courses listed as a Natural Science degree requirement including NURS 203 General Pharmacology (3) and NURS 348 Human Pathophysiology (3) for the BSN program
5. Completion of all college prerequisite courses (Note: Biology, chemistry, NURS 203 General Pharmacology (3) and NURS 348 Human Pathophysiology (3) classes must be passed with a "C" or better grade. Students transferring from outside the UH system must submit course descriptions for all non-nursing courses and course syllabi for nursing courses.)
6. Only 16 credits of nursing prerequisite courses can be outstanding with a maximum of 8 credits in the required sciences by the end of the semester prior to application. The following courses are included under sciences:
 - BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
 - BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
 - BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
 - CHEM 141 Surv Organ Chem & Biochem (3)
 - NURS 348 Human Pathophysiology (3)
 - NURS 203 General Pharmacology (3).
7. Basic students will take a pre-entry examination and/or admission interview, with students expected to meet minimum performance standards set forth by the program. This is not a requirement for RN/BSN students.

Fall admission only: Applications to the Bachelor of Science in Nursing



program must be made by November 1st for Fall entry. Contact the School of Nursing for application forms or visit the [SON Website](#)

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.

Academic Status and Progression Policies

The nursing faculty of UH Hilo are held responsible to the UH Board of Regents and the Hawai'i 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.

Dean's List and Honors

School of Nursing (SON) students in the BSN program who have earned 9 or more semester credits in courses providing a **letter grade** at UH Hilo and achieved a GPA of 3.5 or above and a "Credit" grade from all remaining BSN courses in the preceding semester will appear on the Dean's List.

Undergraduate Honors at Graduation

Honors in the School of Nursing shall be determined in accordance with the cumulative GPA upon graduation in courses taken at UH Hilo in the following manner:

- Honors: UH Hilo GPA of 3.50 to 3.69
- High Honors: UH Hilo GPA of 3.70 to 3.84
- Highest Honors: UH Hilo GPA of 3.85 to 4.00

Only undergraduate students who have earned at least 60 semester hours at UH Hilo, all of which are applicable toward a baccalaureate degree, are eligible for graduation with honors. In addition, at least 35 of the 60 applicable semester hours must be taken for a letter grade. The award of an honors diploma follows the commencement exercise and is subject to the final review of all grades and credits earned.

Academic Suspension and Dismissal

A student failing to achieve a "C" or 2.0 grade in nursing courses at any point in progression through the program will be dismissed from the program after the review and recommendation of the Nursing Admissions, Progression, and Retention Committee. Students are eligible for re-admission according to the guidelines in the School of Nursing re-admission policy. A student may be re-admitted only once into the BSN nursing program.

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.

Students have the right to participate in the UH Hilo grievance protocol.

Reasonable cause for suspension 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, 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.

Policy on Nursing Courses

Nursing courses are listed in blocks and are restricted to students admitted to the upper-division Nursing program, with a major designation of NURS. 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. [See Nursing Requirements section](#). (Students in the R.N. to B.S.N. program take courses within the block as determined by their program of study.) A course with an associated lab must be taken concurrently.

Nursing elective and co-requisite courses do not require admission into the upper-division Nursing program and may be taken with instructor and/or departmental approval, as required.

Grading

All nursing **didactic courses must be taken for a letter grade**. Only full letter grades will be used (no plus or minus grading). All nursing **practicum courses will be "credit/no credit."**

Students must achieve a passing grade of "C" (2.0) for didactic nursing courses and CR (credit) for practicum nursing courses in order to progress in the program.

Special Requirements

Students must meet all health and professional requirements for clinical, including the following:

1. T.B. and immunization clearance;
2. Healthcare Provider's CPR (includes CPR for Adults, Children, and Infants) certification;
3. liability insurance;
4. health insurance.

Compliance with supplemental training required by an agency will be the responsibility of the student. Students may need to obtain background checks and drug testing as required by the clinical agencies and in conformance to program expectations.

Notice to Students

Health care students are required to complete University prescribed academic requirements that involve clinical practice in a University affiliated health care facility setting with no substitution allowable. Failure of a student to complete the prescribed clinical practice shall be deemed as not satisfying academic program requirements. It is the responsibility of the student to satisfactorily complete affiliated health care facility background checks and drug testing requirements in accordance with procedures and timelines as prescribed by the affiliated health care facility.

**B.S. in Nursing Requirements****Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011**

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (107-108 credits)**1. Required Pre-Core Courses (39-40)**

- ANTH 205 Cultural Anthropology (3) (*Formerly offered as ANTH 100*)
- One course in [COM](#) at the 100- or 200-level (3)
- PSY 100 Survey Of Psy (3)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1)
- CHEM 141 Surv Organ Chem & Biochem (3)
- NURS 203 General Pharmacology (3)
- Statistics (Choose **one course** from the following list:):
 - MATH 121 Intro Stats & Prob (3)
 - PSY 213 Statistical Techniques (4)
 - SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
 - BIOL 280 Biostatistics (3)
- PSY 320 Developmental Psy (3)
- NURS 348 Human Pathophysiology (3) (**see Note 4**)
- NURS 375 Applied Human Nutrition (3) (**see Note 4**)

2. Required Nursing Courses (65)

- *Block I. (17)*
 - NURS 347-347L Health Assessment (3), Hlt Assessment Practicum (1)
 - NURS 350 Transcultural Care & Hlth Prom (3)
 - NURS 351 Professnl Nsg Issues & Trends (3)
 - NURS 352L Nursing Skills Laboratory (1)
 - NURS 353-353L Nursing Concepts & Skills (3), Nsg Concepts & Skills Practicum (3)
- *Block II. (18)*
 - NURS 355-355L Adult Health Care I (3), Adult Hlt Care I Practicum (3)
 - NURS 356-356L Parent-Newborn Health Care (3), Parent-Newborn Hlt Care Pract (3)
 - NURS 357-357L Mental Health Care (3), Mental Hlt Care Practicum (3)
- *Block III. (17)*
 - NURS 358 Nursing Research (3)
 - NURS 455-455L Adult Health Care II (3), Adult Hlt Care II Practicum (5)

- NURS 456-456L Parent-Child Health Care (3), Parent-Child Hlt Care Practicu (3)
- *Block IV. (13)*
 - NURS 410-410L Community Health Care (2), Community Hlt Care Practicum (3)
 - NURS 457-457L Collaborative Hlt Care, Ldrshp (3), Collaborative Hlt Care Practic (2)
 - NURS 459-459L Nursing Review (2), Nursing Review Practicum (1) (**see Note 5**)

3. Required Nursing Electives (Choose 3 credits from the following courses): (3)

- NURS 370 Transcultural Health Care (3)
- NURS 371 Health Information Technology (3)
- NURS 372 Spirituality in Health Care (3)
- NURS 373 Gerontological Health Care (3)
- NURS 374 Skills Nursing Leadrshp & Mgmt (3)
- NURS 394 Special Topics in Subject Matter (To Be Arranged)
- NURS 399 Directed Studies (To Be Arranged)
- NURS 471 Intro Rural-Home Health Care (3)
- NURS 494 Special Topics in Subject Matter (To Be Arranged)
- NURS 499 Directed Studies (To Be Arranged)

Total Minimum Semester Hours Required for the B.S. in Nursing

123 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. MATH 121 Intro Stats & Prob (3) meets the Quantitative Reasoning requirement. The Quantitative Reasoning course must be passed with a "C" grade or better.
3. All Natural Science courses must be passed with a "C" grade or better.
4. NURS 348 Human Pathophysiology (3) and NURS 375 Applied Human Nutrition (3) both must be passed with a "C" grade or better.
5. RN to BSN students replace NURS 459-459L Nursing Review (2), Nursing Review Practicum (1) to NURS 361-362 BSN Nursing Preview (3), Nursing Professional Writing (1).
6. Basic students who transfer into the BSN program must complete a minimum of 63 credits of UH Hilo nursing courses. These credits must include:
 - NURS 347-347L Health Assessment (3), Hlt Assessment Practicum (1)
 - NURS 350 Transcultural Care & Hlth Prom (3)
 - NURS 351 Professnl Nsg Issues & Trends (3)
 - NURS 352L Nursing Skills Laboratory (1)
 - NURS 353-353L Nursing Concepts & Skills (3), Nsg Concepts & Skills Practicum (3)
 - NURS 355-355L Adult Health Care I (3), Adult Hlt Care I Practicum (3)
 - NURS 356-356L Parent-Newborn Health Care (3), Parent-Newborn Hlt Care Pract (3)
 - NURS 357-357L Mental Health Care (3), Mental Hlt Care Practicum (3)
 - NURS 358 Nursing Research (3)
 - NURS 455-455L Adult Health Care II (3), Adult Hlt Care II Practicum (5)
 - NURS 456-456L Parent-Child Health Care (3), Parent-Child Hlt Care Practicu (3)
 - NURS 410-410L Community Health Care (2), Community Hlt



- Care Practicum (3)
 - NURS 457-457L Collaborative Hlt Care, Ldrshp (3), Collaborative Hlt Care Practic (2)
 - NURS 459-459L Nursing Review (2), Nursing Review Practicum (1).
- 7. To earn a Bachelor of Science in Nursing, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
- 8. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
- 9. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
- 10. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Health Care Administration Certificate

Coordinator: Randy Hirokawa, Ph.D.

Email: randyh@hawaii.edu

Website: <https://hilo.hawaii.edu/uhh/vcaa/HPSC-programs.php>

The subject certificate in Health Care Administration is designed for pre-nursing students who are interested in management and business-related careers in health care. The program provides students with the business and communication knowledge and skills needed to successfully work in entry-level supervisory positions in hospitals, long-term care, outpatient facilities, physician offices, mental health organizations, insurance companies, public health agencies, and other types of health organizations. Students who successfully complete the Health Care Administration certificate program will understand operation, management, and financing of health care organizations, and understand the role played by communication and information technology in managing and facilitating health care.

The Health Care Administration certificate requires students to successfully complete the pre-nursing curriculum at UH Hilo with a grade of "C" or better, and 15 additional credits. The complete requirements are listed below.

Curriculum (39-40 Credits)

1. Required courses (30-31 credits)

- MATH 100 Survey Of Math (3) or Higher
- MATH 121 Intro Stats & Prob (3)
- BIOL 243 Human Anatomy & Physiology I (3) and BIOL 243L Human Anatomy & Physio I Lab (1)
- BIOL 244 Human Anatomy & Physiology II (3) and BIOL 244L Human Anatomy & Physio II Lab (1)
- BIOL 275 Fund Microbiology (3) and BIOL 275L Microbiology Lab (1)
- CHEM 141 Surv Organ Chem & Biochem (3)
- NURS 203 General Pharmacology (3)
- NURS 348 Human Pathophysiology (3)
- NURS 375 Applied Human Nutrition (3)

2. Required Business Courses (9 credits) Choose three (3) courses from the below

- ACC 201 Intro to Financial Accounting (3)
- BUS 100 Intro To Business (3)

- BUS 240 Business Law (3)
- ECON 100 Intro To Economics (3) or ECON 130 Intro To Microeconomics (3)
- COM 240 Professional Communication (3) or COM 251 Public Speaking (3)

Pacific Islands Studies Certificate

Coordinator: Joseph Genz, Ph.D.

Email: genz@hawaii.edu

Social Sciences Division Office:

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Professors:

- Kathryn Besio, Ph.D.
- Seri Luangphinit, Ph.D.
- Karla McDermid Smith, Ph.D.

Associate Professors:

- Kerri Inglis, Ph.D.
- Marina Karides, Ph.D.
- Kathleen Kawelu, Ph.D.

Assistant Professors:

- Joseph Genz, Ph.D.

Junior Specialist:

- James Mellon, 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 Island environments, cultures, political-economy and history. 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 island peoples in the contemporary world.

Certificate program students will have the opportunity to attend guest lectures by visiting experts on a range of Pacific Island related issues and will be encouraged to participate in Pacific-themed social events. Certificate program students will also be able to take advantage on occasion of the Pacific Islander Student Center or PISC (located in the UH Hilo Campus Center). The Center will provide a space for Pacific Islander students to gather to study, socialize and support one another, as well as enable other students regardless of their ethnic background to learn about the Pacific Islands and its rich histories, cultures, and contemporary issues.

Students will be required to take 12 credits of core classes and 9 elective credits.

Mission

The mission of the UH Hilo Pacific Islands Studies Certificate is to provide students with a rigorous, high-quality foundation in the culture, geography, and history of Oceania. The primary goal is to foster exchange and collaboration among Pacific Islander students and between Pacific Islander and non-Pacific Islander students, as well as to prepare students for graduate studies and/or employment in Pacific



environments. The Pacific Islands Studies Certificate program supports students from all backgrounds and disciplines, with the intent to deepen their knowledge of Pacific Island environments, cultures, political-economy, and history.

Program Learning Outcomes

The Pacific Islands Studies Certificate is designed to:

- develop student awareness of inter-disciplinary research as applied to issues in the Pacific region
- develop student appreciation of applied learning and community service and outreach as applied to issues in the Pacific region
- foster a greater understanding of Pacific Islander cultures and their experiences in Hawai'i
- foster exchange and collaboration among Pacific Islander students and between Pacific Islander and non-Pacific Islander students.

Student Learning Outcomes

Students earning the Certificate in Pacific Islands Studies will be able to:

- understand and apply the theories and methods of the inter-related but distinct fields of history, geography and anthropology (and others) to a variety of historical and contemporary issues within the Pacific
- interact with the diverse Pacific Island communities in Hawai'i and specifically at the UH Hilo campus
- critically evaluate a variety of scientific data, theories, and perspectives pertaining to physical, environmental, and social processes occurring in the Pacific region
- demonstrate a depth of knowledge about environmental and social issues in the Pacific region, and on a specific Pacific island or nation, in particular
- effectively communicate the results of a scholarly research project in written form
- apply their Certificate in the development of their resume or future job search.

Curriculum

- [Pacific Islands Studies Certificate Requirements](#)

Pacific Islands Studies Certificate Requirements

Requirements (21 credits):

1. **Required Courses (12):**
 - ANTH 300 Cultures of Oceania (3) **or** ANTH 357 Change in The Pacific (3)
 - GEOG 335 Geog Of Oceania (3)
 - HIST 316 Pacific History I: To 1900 (3) **or** HIST 317 Pacific History II: From 1900 (3)
 - ANTH/GEOG 435 Senior Seminar Pacific Studies (3) **or** HIST 415 Senior Seminar Pacific Studies (3)
2. **Elective Courses from (9):**
 - GEOG/ANTH 295 Pacific: Brown Bag Seminar Ser (1)
 - HWST 175 Intro Music Of Polynesia (3)
 - ANTH 300 Cultures of Oceania (3) ¹
 - ANTH 357 Change in The Pacific (3) ¹
 - ANTH 385 Hawn & Pacific Prehistory (3)
 - ANTH 447 Marine Anth:Fishers in Oceania (3)

- GEOG 107 Hawaii in the Pacific (3)
- GEOG/ENSC 436 Environ Politics in Pacific (3)
- GEOG 331 Tourism Geographies (3)
- HIST 316 Pacific History I: To 1900 (3) ¹
- HIST 317 Pacific History II: From 1900 (3) ¹
- HIST 324 Militarization in the Pacific (3)
- HIST 327 Environmental History--Pacific (3)
- HIST 411 Family & Gender in Oceania (3)
- HIST 481 Land & Sovereignty in Pacific (3)
- MARE 310 The Atoll Ecosystem (3)
- MARE 410 Marine Debris in the Pacific (3)
- SOC/WS 408 Island Feminism (3)

¹ If not used as a required course.

Notes

1. Students may take other courses or internships with Pacific content, subject to the approval of the Pacific Islands Studies faculty.
2. Students may take discipline-based directed study from a participating Pacific Islands Studies faculty member. Discipline-based courses relating to Pacific Islands topics allow students to focus research papers on the Pacific and may be approved for credit toward the certificate by a vote of participating faculty.
3. Other appropriate courses may be included from time to time.

Performing Arts

Department Chair: Michael D. Marshall, M.F.A.

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Websites: hilo.hawaii.edu/academics/performing-arts/ and artscenter.uhh.hawaii.edu

Associate Professor:

- Richard Lee, Ph.D., Music

Instructors:

- Amy Horst, Music
- Celeste Staton, Dance

Lecturers and Staff:

- Gloria Mendoza-Watson, Staff Accompanist
- Mark Sheffield, Applied Music Instructor
- Walter Greenwood, Choral Program and Staff Accompanist

The Baccalaureate degree in Performing Arts consists of Integrated Major Requirements that are a balance of Dance, Music and Performance. 1) required PARTS core 21 credits; 2) Unified Training Experiences 17 credits; 3) Leadership 6 credits; plus 4) 12 additional advanced (300 - 400) level credits in either Dance, Music, and Performance that have been selected in consultation with your PARTS department Advisor.

The PARTS BA degree requires completion of UHH General Electives (64 credits) plus the PARTS Integrated Major (56 credits): 120 credits total.

Mission

The UH Hilo Performing Arts Major has a three-fold mission:

- To serve the University of Hawai'i at Hilo with general education and service courses;



- To provide an academic major in the Performing Arts, with three individual specialty concentrations in dance, drama performance, and music; and
- To contribute to the cultural life of the University of Hawai'i at Hilo and Hawai'i Island through artistic performances and offerings in music, drama, and dance, through public lectures, and through related professional activities.
- [B.A. in Performing Arts Requirements](#)
- [Performing Arts Certificate](#)
- [Dance \(DNCE\) Courses](#)
- [Drama \(DRAM\) Courses](#)
- [Music \(MUS\) Courses](#)
- [Performing arts \(PART\) Courses](#)

B.A. in Performing Arts Requirements

The Performing Arts department is centered on applied learning, supported by and integrated with theory across the disciplines of dance, drama, and music. The remarkable national and local success of our students resides in their ability to compete and thrive in their professional and personal lives. Performing Arts is, for many of our students, a calling, as it is for the artists who make up our faculty, all of whom are active and high achieving practitioners in their art form. The new performing arts degree is a unified degree, focused on learning across disciplines (including drama, dance, and music) in the core, with emphasis on theory and performance (in class or on the stage), all three disciplines for all students. The Performing Arts major has 56 credits in the core plus another 12 credits of freely chosen electives. Major electives will be offered such that students can select freely depending on their interest and talents.

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (56 credits)

1. Required Performing Arts Major Core Courses (21)

- DNCE 251 Intro To Dance (3)
- DNCE 160 Ballet I (3) **or** DNCE 180 Jazz Dance I (3) **or** DNCE 190 Modern Dance I (3)
- DRAM 221 Beginning Acting I (3)
- DRAM 271 Introduction to Theatre (3)
- MUS 123 Elementary Voice Class I (1)
- MUS 124 Elem Voice Class II (1)
- MUS 160 Intro to Music Literature (3)
- MUS 180-180L Elementary Music Theory (3), Elementary Music

Theory Lab (1)

2. Unified Training Experience Courses (17)

- DRAM 280-280L Basic Stagecraft (3), Basic Stagecraft Laboratory (1)
- DRAM 364 Advanced Theatre Practicum (1-4) (3 credits required)
- DRAM 490-490L Lyric Theatre (3), Lyric Theatre Lab (1)
- Ensemble: (Choose one)
 - DNCE 401 Dance Ensemble (3)
 - MUS 102 University Chorus (3)
 - MUS 404 Kapili Choir (3)
 - MUS 402 Jazz Orchestra (3)
 - DRAM 421 Acting Troupe (3)
- PART 495 Senior Project (3)

3. Leadership courses. Choose **two** courses from the following: (6)

- DNCE 371 Choreography (3)
- DRAM 430 Directing (3)
- MUS 390 Choral Conducting (3)
- DNCE 419 Dance In Education (3)
- DRAM 419 Drama in Education (3)
- MUS 419 Music for Elem Teachers (3)

4. Major electives (12)

- An additional 12 credits in [DNCE](#), [DRAM](#), or [MUS](#) at the 300- or 400-level selected in consultation with advisor.

Total Semester Hours Required for the B.A. in Performing Arts

120 credits required.

Notes

1. To earn the BA in Performing Arts, students must earn a "C" or higher in all required Performing Arts courses.
2. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, contact the Performing Arts department chair and consult the instructor at the time of registration.
3. Students enrolled in **MUS 135, 136, 235, 236, 335, 336, 435, 436** are required to participate in student recitals and juries, and to be co-enrolled in a Performing Arts ensemble.
4. **No more than 12 credits** of ensemble courses may be applied to the 300- or 400-level total required for the Music Concentration.
5. Students enrolled in **DRAM 350 Stage Costume (3)** who have no previous sewing experience also **must** enroll concurrently in **DRAM 350L Stage Costume Laboratory (1)**.
6. In order to earn a Bachelor of Arts degree in Performing Arts, students must not only fulfill the requirements for one of the specialty concentrations in the major but also meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
7. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
8. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
9. To ensure progress toward degree completion, **students are urged**



to meet with an advisor each semester before registering.

Performing Arts Certificate

The Performing Arts Certificate is designed for non-majors who wish to show expertise in the performing arts. Prerequisites must be completed before registering for individual courses in the Certificate.

Requirements (27 credits):

1. **Required Courses in Drama (9)**
 - DRAM 271 Introduction to Theatre (3)
 - And **two** of the following courses:
 - DRAM 321 Styles Of Acting (3)
 - DRAM 340 Stage Makeup (3)
 - DRAM 350 Stage Costume (3)
 - DRAM 430 Directing (3)
 - DRAM 490 Lyric Theatre (3)
2. **Required Courses in Dance (9)**
 - DNCE 251 Intro To Dance (3)
 - DNCE 371 Choreography (3)
 - DNCE 401 Dance Ensemble (3)
3. **Required Courses in Music (9)**
 - MUS 160 Intro to Music Literature (3)
 - And **two** ensemble courses, selected from:
 - MUS 102 University Chorus (3)
 - MUS 402 Jazz Orchestra (3)
 - MUS 404 Kapili Choir (3)
 - MUS 406 Chamber Ensembles (3)

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.

Philosophy

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Humanities Division Office:

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Tel: (808) 932-7216

Website: hilo.hawaii.edu/academics/philosophy/

Professor:

- [John H. L. Cheng](#), Ph.D.

Associate Professors:

- [Celia Bardwell-Jones](#), Ph.D.
- [Christopher Lauer](#), Ph.D.

Assistant Professor:

- [Timothy J. Freeman](#), 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.

Mission

The mission of the undergraduate degree program in Philosophy is to enable the students to understand the role and importance of philosophical inquiry, and to develop skills in its use. The program is designed to provide exposure to the philosophical perspectives of great thinkers, past and present, and to help students increase their abilities to think clearly, logically, and critically both about philosophical issues and about issues in other fields of learning.

Goals for Student Learning in the Major

Students who successfully complete the major in Philosophy are expected to:

- Be able to think critically about philosophical issues and express philosophical ideas in an articulate and well reasoned manner
- Be able to recognize valid and invalid inferences expressed in ordinary language, and to recognize a range of formal and informal fallacies of reason
- Be familiar with the range of philosophical ideas within traditional as well as contemporary Western Philosophy
- Be familiar with the range of philosophical ideas within traditional as well as contemporary Eastern Philosophy

Training in Philosophy will enable a student to appreciate the points of view of others. Philosophy students gain skills in understanding arguments, including complex arguments, and in expressing their own opinions in clear and accurate ways. Evidence of superior reasoning skills can be seen from the fact that Philosophy majors have among the highest overall scores of any major on entry exams for graduate schools, even for specialty areas such as law school that have no direct relation to the subject matter of Philosophy.

Prospects for Philosophy Graduates

The Philosophy major prepares students well for further education toward such careers as teaching, law, and medicine. Moreover, in both government and business, positions for Philosophy majors are often jobs that involve the exercise of careful judgment, fairness, in-depth thinking, and sensitivity to the needs of other persons. These include jobs in administration, human resources, public information, community relations, advertising, manpower planning, manufacturer's representation, technical writing, editing, benefits analysis, immigration, and many others.

Curricula

- [B.A. in Philosophy Requirements](#)
- [Philosophy Minor](#)
- [Philosophy \(PHIL\) Courses](#)

B.A. in Philosophy Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic](#),



Area, and Integrative requirements and graduation requirements in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (30 credits)

1. PHIL 209 Reasoning (3) **or** PHIL 345 Symbolic Logic (3)
2. PHIL 211 History of Ancient Philosophy (3)
3. PHIL 213 History of Modern Philosophy (3) **or** PHIL 313 19th Century Philosophy (3)
4. PHIL 307 Theory of Knowledge (3) **or** PHIL 310 Metaphysics (3) **or** PHIL 412 Philosophy of Nature (3)
5. PHIL 315 Ethical Theory (3) **or** PHIL 316 Science, Technology & Values (3) **or** PHIL 327 Bioethics (3) **or** PHIL 329 Environmental Ethics (3)
6. **two** of the following courses (6):
 - o PHIL 300 History of Indian Philosophy (3)
 - o PHIL 301 Hist Of Chinese Philosophy (3)
 - o PHIL 302 Hist Of Buddhist Philosophy (3)
 - o PHIL 304 Ethics and Cultural Diversity (3)
 - o PHIL 340 Philosophy Of Religion (3)
 - o PHIL 343 Comparative Philosophy (3)
 - o PHIL 430 Philosophy of Zen (3)
 - o PHIL 435 Philosophy Of Tao (3)
 - o PHIL 450 Mahayana Buddhist Phil (3)
7. And an additional **three courses** in [PHIL](#) at the 300- or 400-level.

Total Semester Hours Required for the B.A. in Philosophy

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. The B.A. in Philosophy requires a total of 45 credits at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Philosophy, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Philosophy Minor

The Philosophy Minor is designed to develop critical thinking and writing skills and expose students to Eastern and Western philosophical traditions. It's an excellent way for students in other majors to explore the joys of knowledge for its own sake and show their familiarity with the major ethical issues of today.

Requirements (15 credits):

1. PHIL 211 History of Ancient Philosophy (3) **or** PHIL 213 History of Modern Philosophy (3) **or** PHIL 313 19th Century Philosophy (3)
2. **one** of the following courses (3):
 - o PHIL 307 Theory of Knowledge (3)
 - o PHIL 310 Metaphysics (3)
 - o PHIL 412 Philosophy of Nature (3)
 - o PHIL 390 History & Phil of Science (3)
3. **one** of the following courses (3):
 - o PHIL 220 Social Ethics (3)
 - o PHIL 304 Ethics and Cultural Diversity (3)
 - o PHIL 315 Ethical Theory (3)
 - o PHIL 320 Social & Political Phil (3)
 - o PHIL 323 Professional Ethics (3)
 - o PHIL 325 Philosophy Of Law (3)
 - o PHIL 327 Bioethics (3)
 - o PHIL 329 Environmental Ethics (3)
 - o PHIL 330 Philosophy of Art (3)
 - o PHIL 375 Feminist Philosophy (3)
4. **one** of the following courses (3):
 - o PHIL 300 History of Indian Philosophy (3)
 - o PHIL 301 Hist Of Chinese Philosophy (3)
 - o PHIL 302 Hist Of Buddhist Philosophy (3)
 - o PHIL 304 Ethics and Cultural Diversity (3)
 - o PHIL 340 Philosophy Of Religion (3)
 - o PHIL 343 Comparative Philosophy (3)
 - o PHIL 430 Philosophy of Zen (3)
 - o PHIL 435 Philosophy Of Tao (3)
 - o PHIL 450 Mahayana Buddhist Phil (3)
5. And **one** additional [PHIL course](#) at the 200-, 300-, or 400-level.

Note: Of the courses chosen, at least **9 credits** must be at the 300- or 400-level.

Physics

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Natural Sciences Division Office:

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Professor:

- Philippe Binder, Ph.D.

Associate Professor:

- Rene Martin, Ph.D.
- Marianne Takamiya, Ph.D.

Assistant Professors:



- [Kathy Cooksey](#), Ph.D.
- Heather Kaluna, Ph.D.

Instructors:

- [John Hamilton](#), M.S.

Technician:

- [John Coney](#), M.Ed.

Physics is the basic science underlying all other sciences. It attempts to describe the fundamental nature of the universe and how it works, striving for the simplest and yet most effective explanations for its diverse behavior. A very few of the things that Physics explains are why the sky is blue, what keeps a satellite in orbit, what the building blocks of atoms are, and why the weather is so difficult to predict.

There is no other field of study available which offers the student greater flexibility in our high-tech society. Whether a student is contemplating a career as a scientist, an engineer, a teacher, a physician, a lawyer, or a businessperson, she or he can have no better grounding in the natural sciences, mathematics, and logical reasoning than is available in a good undergraduate physics program. The intellectual rewards are there, as are the opportunities for a flexible choice of careers at graduation and beyond.

Mission

The mission of the UH Hilo physics program is to provide students with a rigorous, high-quality foundation in physics. The primary goal is to prepare students for graduate studies, for work as professional physicists, or for careers in secondary education, engineering and just about any technical or scientific fields. Our program supports the liberal arts mission of the University by providing general education courses for all students and service courses for the natural sciences and pre-health fields. The physics program has, and actively seeks, partnerships with other UH Hilo STEM programs. Although a quality undergraduate education is the focus of our degree, our faculty, together with our students, conduct original research and make substantial contributions to community education and service on the Big Island.

Program Learning Outcomes

The B.A. program in physics is designed to develop student mastery of concepts and problem-solving skills in:

- Classical mechanics
- Thermal and statistical physics
- Electricity, magnetism, and optics
- Modern physics, relativity, and quantum mechanics
- Other areas such as electronics, astrophysics, and nonlinear science

Goals for Student Learning in the Major

Graduates are expected to:

- Effectively express scientific ideas in writing
- Use standard mathematical and computational tools to solve problems in physics and astrophysics

We will strive to provide every opportunity for our students to:

- Develop experimental skills appropriate for physics work
- Become proficient at finding and analyzing scientific literature

- Participate in original research projects
- Earn internship and employment opportunities as appropriate

Special Aspects of the Program

The Department is housed in the campus' Science and Technology Building which provides modern offices, classrooms, introductory and advanced undergraduate labs, and faculty research facilities that offers students with an ideal working environment.

Students can participate in faculty-led research in nonlinear science and high-energy physics and in the Department's international collaborations.

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 a small 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. Funding for travel to meetings is available from this program.

Affiliated faculty from the University Technology Park and other facilities offer a rich array of supplemental Special Topics courses which expand opportunities for students.

Curricula

- [B.A. in Physics Requirements](#)
- [Physics Minor](#)
- [Physics \(PHYS\) Courses](#)

B.A. in Physics Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (72 credits)

Please note any course pre-requisites.

1. Required Courses in Physics (34)

- PHYS 170-170L Gen Phys I: Mechanics (4), Gen Phys I Lab (1)
- PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
- PHYS 260-260L Computational Physics & Astron (3), Computational Phys & Astr Lab (1)
- PHYS 274 Gen Phys III: Intro Modern Phy (3)
- PHYS 330 Electromagnetism (3)
- PHYS 331 Optics (3)
- PHYS 341 Thermodynamics (3)



- PHYS 371 Classical Mechanics (3)
- PHYS 430 Quantum Mechanics I (3)
- PHYS 495A-495B Seminar (1), Seminar (1)
- 2. **Required Courses in Mathematics and Computer Science (23)**
 - MATH 205 Calculus I (4)
 - MATH 206 Calculus II (4)
 - MATH 231 Calculus III (3)
 - MATH 232 Calculus IV (3)
 - MATH 300 Ordinary Diff Equations (3)
 - MATH 311 Intro Linear Algebra (3)
 - CS 150 Intro To Computer Science I (3)
- 3. **Required Elective Courses in Physics (6)**
 - Choose **6 Credits** from the following courses:
 - PHYS/MATH 360 Mathematical Physics (3)
 - PHYS/MATH 380 Chaos (3)
 - PHYS 431 Quantum Mechanics II (3)
 - PHYS/ASTR 432 Senior Lab/Thesis Project (3)
 - ASTR 350 Stellar Astrophysics (3)
 - ASTR 351 Galactic & Extragal Astrophys (3)
 - ASTR 460 Gravitation & Cosmology (3)
 - MARE 440 Physical Oceanography (3)
- 4. **Required Natural Science Electives (9)**
 - ASTR 110 General Astronomy (3)
 - ASTR 110L Gen Astronomy Lab (1)
 - ASTR/PHYS 111 Intro to Space Exploration (3)
 - ASTR 150 Life in The Universe (3)
 - ASTR 180 Princ Of Astron I (3)
 - ASTR 181 Princ Of Astron II (3)
 - ASTR 250 Observational Astronomy (3)
 - ASTR 250L Observational Astronomy Lab (2)
 - CHEM 161 General Chemistry I (3)
 - CHEM 161L General Chemistry I Lab (1)
 - CHEM 162 General Chemistry II (3)
 - CHEM 162L General Chemistry II Lab (1)
 - BIOL 101 General Biology (3)
 - BIOL 101L Gen Biol Lab (1)
 - BIOL 171 Introductory Biology I (3) *(Formerly offered as BIOL 175)*
 - BIOL 171L Introductory Biology I Lab (1) *(Formerly offered as BIOL 175L)*
 - BIOL 172 Introductory Biology II (3) *(Formerly offered as BIOL 176)*
 - BIOL 172L Introductory Biology II IAB (1) *(Formerly offered as BIOL 176L)*
 - BIOL 280 Biostatistics (3)
 - BIOL 281 General Ecology (3)
 - CS 151 Intro to Computer Sci II (3)
 - GEOG/PHYS 120 Weather & Climate Hawaii (3)
 - GEOG 201 Interp Geog Data (3)
 - GEOG 280 Introduction to Geostatistics (3)
 - GEOL 111 Understanding the Earth (3)
 - GEOL 111L Understanding the Earth Lab (1)
 - GEOL 112 Hist of the Earth & Its Life (3)
 - GEOL 112L History of the Earth Lab (1)
 - GEOL 212 Earth Materials I: Minerals (4)
 - GEOL 330 Deformation of the Earth (4)
 - GEOL 450 Geological Remote Sensing (3)
 - PHYS 110 Physics of Contemporary Issues (3)
 - PHYS 111 Intro to Space Exploration (3)
 - PHYS 150 World Models (3)
 - PHYS 151 College Physics I (3)
 - PHYS 152 College Physics II (3)

Total Semester Hours Required for the B.A. in Physics

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major and a minimum grade of C in each course required for the major.
2. At least 36 credits must be earned in courses at the 300- or 400-level.
3. Students are encouraged strongly to meet with their advisors regarding Natural Science elective courses appropriate to their career aspirations.
4. To earn a Bachelor of Arts degree in Physics, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Physics Minor

Requirements (19 credits):

1. PHYS 171-170L Gen Phys II: Elec & Magnetism (4), Gen Phys I Lab (1)
2. PHYS 272-272L Gen Phys II: Elec & Magnetism (4), Gen Phys II Lab (1)
3. PHYS 274 Gen Phys III: Intro Modern Phy (3)
4. And **6 credits** of additional **PHYS** courses at the 300- or 400-level.

Political Science

Department Chair: Katherine Young, Ph.D.

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Social Sciences Division Office:

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Professors:

- Todd Belt, Ph.D.
- Enbao Wang, Ph.D.

Associate Professor:

- Sarah Marusek, Ph.D.
- Katherine Young, Ph.D.

Assistant Professor:

- Su-Mi Lee, Ph.D.

Political science is the academic field that systematically studies the



activity of making and enforcing rules and the relations of power intrinsic to this process, or, put simply, how we decide “who gets what.” Since politics encompasses a wide range of institutions and human behavior, political science is a far-reaching discipline. Political activities ranging from the behavior of leaders to the public policy aspects of nuclear energy are covered in this field. Virtually every aspect of our lives is affected by politics, whether it be the voting behavior of our elected officials, war in some distant part of the world, the price of gasoline, or what we watch on television.

The Political Science program is designed to provide students with exposure to a broad range of topics within contemporary political science and train students in the techniques and theories used by political scientists to explore, describe, and explain political phenomena. All the major subfields of political science are offered in the major: American politics, comparative politics, international relations, political theory, public administration, and public law.

Goals for Student Learning in the Major

By graduation, Political Science majors:

- will be able to identify the major sub-fields of political science and the literature and scholarly contributions in each sub-field of political science;
- will know the research methods and documentation requirements for conducting and reporting research in political science;
- will be able to produce research papers in a Chicago format that demonstrate high levels of written communication fluency and information literacy;
- will be able to communicate political ideas effectively through written and oral communication;
- will be able to critically analyze political events and phenomena;
- will be able to employ different statistical tests for the purposes of testing hypotheses and to select the right statistical test for the data at hand.

Prospects for Political Science Graduates

Political Science majors are well prepared for entry into the job market in a wide variety of fields and for admission to law or other graduate programs. 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.

Contributions to the UH Hilo General Education Program

Political Science course offerings contribute to fulfilling the College’s educational purpose of preparing students “to meet the demands of both profession and citizenship.”

Special Aspects of the Political Science Program

The Political Science Department sponsors a number of hands-on activities to broaden and deepen the students’ knowledge of political science. Among these are a variety of internships in local, state, and federal agencies, as well as a spring internship in the office of a state legislator. Political science students who demonstrate mastery of the subject matter, professional competence, and responsibility are eligible

to participate in these internship programs. Through the internship programs students gain a unique experience in politics and government that supplements their coursework and may enhance their post-graduation employment prospects.

The Political Science Club serves the educational and social interests of students and provides leadership opportunities for club officers. Club members arrange activities and events that promote awareness of political issues.

Political Science students may choose to work with Political Science faculty to write a senior thesis, a research effort that will be assigned and guided by an individual faculty member. Students will present thesis research and findings to a public audience.

Students in Political Science with strong academic performance may apply to become members of the University of Hawai’i at Hilo’s Iota Iota chapter of the National Political Science Honor Society, Pi Sigma Alpha (ΠΣΑ).

Curricula

- [B.A. in Political Science Requirements](#)
- [Political Science Minor](#)
- [International Politics Certificate](#)
- [Political Science \(POLS\) Courses](#)

B.A. in Political Science Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (36 credits)

1. One course in Foundations (3) choose from:
 - POLS 100 Pol Sci & Career Opportunities (3)
 - POLS 101 Am Politics: National (3)
 - POLS 101G Am Politics: Ntl Citizenship (3)
2. POLS 280 Methods of Research (3)
3. One course in Comparative Politics (3) choose from:
 - POLS 251 Intro to Comparative Politics (3)
 - POLS 351 Politics Of China (3)
 - POLS 353 Politics Of Japan (3)
 - POLS 357 Politics of the Pacific Rim (3)
4. One course in Political Theory (3) choose from:
 - POLS 300 Hist Poli Thought: Anc To Mod (3)
 - POLS 303 Feminist Political Theory (3)
 - POLS 304 Liberalism and Globalism (3)



- POLS 402 Contemporary Political Thought (3)
- 5. One course in International Relations (3) choose from:
 - POLS 242 Intro To World Politics (3)
 - POLS 342 International Law (3)
 - POLS 343 Int'l Conflict Management (3)
 - POLS 346 International Organizations (3)
 - POLS 348 International Human Rights (3)
- 6. One course in Public Law (3) choose from:
 - POLS 220 Intro to Law and Legality (3)
 - POLS 321 Constitutional Law (3)
 - POLS 325 Legal Geography (3)
 - POLS 327 Law and Identity (3)
 - POLS 328 Rights (3)
 - POLS 428 First Amendment (3)
- 7. One course in American Politics (3) choose from:
 - POLS 331 Presidency And Congress (3)
 - POLS 332 Politics Of Race & Gender (3)
 - POLS 334 Pol Bvr, Campaigns & Elections (3)
 - POLS 335 Envir Politics & Policy (3)
 - POLS 338 Public Policy Process (3)
 - POLS 360 Public Administration (3)
 - POLS 433 Politics, Media & Public Opin (3)
- 8. Four electives of **POLS courses** at the 300- or 400-level (12)
- 9. POLS 470S Seminar in Political Science (3)

Total Semester Hours Required for the B.A. in Political Science

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Political Science, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Political Science Minor

The Political Science minor provides students with an introduction to the subfields of discipline. With classes that emphasize reading, writing, and critical thinking, the minor is recommended for students in a variety of disciplines who are interested in the world around them. Requirements include introductory courses as well as a choice of upper division electives.

Requirements (21 credits):

1. **Required course:**
 - POLS 101 Am Politics: National (3) **or** POLS 101G Am Politics: Ntl Citizenship (3)

2. **Any three of the following courses:**
 - POLS 201 Intro to Political Theory (3)
 - POLS 220 Intro to Law and Legality (3)
 - POLS 242 Intro To World Politics (3)
 - POLS 251 Intro to Comparative Politics (3)
3. **Three additional POLS courses at the 300- or 400-level.**

International Politics Certificate

Contact: Enbao Wang, Ph.D

Email: enbao@hawaii.edu

The International Politics Certificate integrates a wide variety of existing courses into a cohesive whole focusing on international issues. This program of study is designed to prepare students for career opportunities in the new world system—a world system in which nongovernmental actors are proliferating, global communications networks multiplying, world travel expanding and in which states are becoming increasingly interdependent. The Certificate is particularly useful for students pursuing careers in the foreign service, international institutions, nongovernmental international organizations, and international business. The International Studies Certificate aims both to ready students for careers in the new world system and to foster global understanding.

The International Politics Certificate requires two semesters of a foreign language with prerequisite preparation in general education courses that emphasize world geography and culture. The core courses, also at the lower-division level, emphasize international political and economic structures and interrelationships. The student then chooses an area for concentrated study.

The International Politics Certificate is intended to familiarize students with the relations among nations and other actors in the international system. This option will focus on the institutions and agencies through which states and groups of people interact at the global level. Consideration will also be given to the political, social and cultural practices of the different people who comprise the global system. This option is particularly useful for students pursuing careers in international service or in international business or nongovernmental organizations.

Student Learning Outcomes

Upon completion of the International Studies Certificate (International Relations Concentration), students will be able to do the following:

- understand major themes of global studies and current status and trend of globalization;
- develop the theoretical expertise necessary to explain global issues and to anticipate emerging threats, challenges, and opportunities in the global arena;
- identify key institutions and dynamics in the development of the contemporary international system as well as their historical foundations;
- recognize the differences of nations in political, economic, social, religious and cultural areas as well as models of development;
- apply relevant methodologies to produce research papers on global issues;
- demonstrate basic proficiency in a language in addition to English.

Requirements (26 credits)

1. **Language (8 Credits)**
 - [First year language](#) (8)



2. Politics and Economics (6 Credits): Choose two courses from the below

- POLS 201 Intro to Political Theory (3)
- POLS 242 Intro To World Politics (3)
- POLS 251 Intro to Comparative Politics (3)
- ECON 100 Intro To Economics (3)

3. Civilization and Culture (6 Credits): Choose two courses from the below

- ANTH 205 Cultural Anthropology (3)
- GEOG 102 World Regional Geography (3)
- GEOG 103 Geog And Contemp Soc (3)
- HIST 151 World History to 1500 (3)
- HIST 152 World History since 1500 (3)

4. Program Electives (6 Credits): Choose two courses or six credits from the below

- POLS 304 Liberalism and Globalism (3)
- POLS 340 U.S. Foreign Policy (3)
- POLS 342 International Law (3)
- POLS 345 Model United Nations (3)
- POLS 346 International Organizations (3)
- POLS 351 Politics Of China (3)
- POLS 353 Politics Of Japan (3)
- POLS 355 Internatl Political Economy (3)
- POLS 357 Politics of the Pacific Rim (3)
- POLS 442 War and the State (3)
- POLS 457 U.S.-China Relations (3)

Notes: Students may be eligible for a waiver of the foreign language requirement (8 credits) if 1) they can document that English is not their first language or 2) they can document their foreign language proficiency by taking the language proficiency test administered by the Language Department of UH Hilo. Please note that students who are granted a waiver do not receive credit.

Any request for a waiver must be submitted in writing to the certificate advisor, Dr. Enbao Wang, with any supporting documentation.

UH Hilo Pre-Pharmacy

Pre-Pharmacy Advisor: [Lyssa Sakamoto](#)

Email: prepharm@hawaii.edu

Tel: (808) 932-7790

Website: pharmacy.uhh.hawaii.edu/academics/prepharm/

Pre-Pharmacy, is a minimum two-year comprehensive preparatory program of study toward admittance into the professional curriculum leading to a Doctor of Pharmacy Degree (Pharm.D.) at the Daniel K. Inouye College of Pharmacy (DKICP). The Pre-Pharmacy Program is not a major at UH Hilo. Completion of the curriculum, however, provides students with the necessary prerequisite course requirements for application to the DKICP Pharm.D. Program. All participating students receive specialized advising toward the development of an academic plan and guidance on the application process to pharmacy schools. Completion of the Pre-Pharmacy curriculum does not guarantee admission into the DKICP.

Mission

Develop and expand academic options, advising, mentorship, and community service opportunities for students for fulfillment of pre-pharmacy academic requirements and other pre-professional preparatory experiences toward successful application to the DKICP, or

other institutions.

Prospects and Suggestions for Students

Advising is a very important resource designed to help students complete the requirements of the University and their individual majors. Students should consult with their advisor at least once a semester to decide on courses, check progress towards graduation, and discuss career options and other educational opportunities provided by UH Hilo. Advising is a shared responsibility, but students have final responsibility for meeting degree requirements.

The Daniel K. Inouye College of Pharmacy Guaranteed Admission Program

Email: prepharm@hawaii.edu

Tel: (808) 932-7790 **Website:**

pharmacy.uhh.hawaii.edu/academics/gap/

The DKICP Guaranteed Admission Program is an intensive three-year scholarly preparatory program for high school seniors and college students. Applicants to the Guaranteed Admission Program are highly motivated to achieve their goal of becoming a Pharmacist. Guaranteed Admission Program students are required to complete the Pre-Pharmacy requisite courses (minimum of 85 credits) over three-years while maintaining the desired GPA, submit an Early Decision PharmCAS application, submit a supplemental application, and successfully interview with the DKICP. Guaranteed Admissions Program students are ensured a seat in the DKICP Pharm.D. Program upon successful completion of the Guaranteed Admission Program. Acceptance into the Pharm.D. Program will be determined by the DKICP Guaranteed Admission Program Committee and the Admissions Committee.

Curriculum

Curriculum requirements include a total of 68-69 credit hours (30-31 general education, 36 core science credit hours, and 2 credit hours Pre-Pharmacy Orientation). The coursework is structurally aligned with the curriculum requirements toward a BA or BS degree in Biology or Chemistry at UH Hilo. Details of course listings and transfer tables are available on the [Pre-Pharmacy website](#).

Group 1. General Education Requirements

Students should meet with their advisor to ensure that they enroll in courses that will enable them to take recommended Pre-Pharmacy General Education courses. This is particularly important for students who plan to earn the BA in Pharmacy Studies while earning their Doctor of Pharmacy degree.

The General Education courses should include:

- English Composition (6)
- Quantitative Reasoning (4): MATH 205 Calculus I (4)
- World Cultures (3)
- Humanities (6)
- Social Sciences (6)
- Speech (3)
- Economics (3)

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).



Group 2. Natural Science Requirements (36 credits)

- BIOL 171-171L Introductory Biology I (3), Introductory Biology I Lab (1) (Formerly offered as BIOL 175-175L)
- BIOL 172-172L Introductory Biology II (3), Introductory Biology II IAB (1) (Formerly offered as BIOL 176-176L)
- CHEM 161-161L General Chemistry I (3), General Chemistry I Lab (1)
- CHEM 162-162L General Chemistry II (3), General Chemistry II Lab (1)
- CHEM 241-241L Organic Chem I (3), Organic Chem I Lab (1)
- CHEM 242-242L Organic Chem II (3), Organic Chem II Lab (1)
- BIOL 243-243L Human Anatomy & Physiology I (3), Human Anatomy & Physio I Lab (1)
- BIOL 244-244L Human Anatomy & Physiology II (3), Human Anatomy & Physio II Lab (1)
- BIOL 275-275L Fund Microbiology (3), Microbiology Lab (1) **or** BIOL 375-375L Biology of Microorganisms (3), Biology of Microorganisms Lab (1)

Group 3. Courses from Related Fields (2 credits)

- IS 201 Pre-Pharmacy Orientation (2)

Pre-Pharmacy Undergraduate Certificate:

The Department of Chemistry also offers a Pre-Pharmacy Subject Certificate. The Pre-Pharmacy Certificate program helps prepare students toward successful application to Colleges of Pharmacy. Students also have the option to complete a four-year undergraduate degree program in Chemistry- Biosciences during and after completion of their Pre-Pharmacy requirements, thereby expanding their career options after graduation. Students interested in pursuing the certificate should coordinate with their advisor to declare the program of study.

[Pre-Pharmacy Certificate Curriculum](#)

Psychology

Department Chair: Adam A. Pack, Ph.D.

Email: pack@hawaii.edu

Social Sciences Division Office:

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Website: hilo.hawaii.edu/depts/psychology/

Professors:

- [Bartley Frueh](#), Ph.D.
- [Bryan Kim](#), Ph.D.
- [Adam Pack](#), Ph.D.
- [Cheryl Ramos](#), Ph.D.
- [Vladimir Skorikov](#), Ph.D.

Associate Professors:

- [Steven Herman](#), Ph.D.
- [Eric Heuer](#), Ph.D.
- [Charmaine Higa-McMillan](#), Ph.D.
- [Sunyoung Kim](#), Ph.D.
- [Errol Yudko](#), Ph. D.

Assistant Professor:

- [Alexander Nagurney](#), Ph.D.

As the study of behavior and experience, psychology offers many benefits to you, the student. It can satisfy your curiosity about yourself, others, and animals; it offers psychological insights into personal and societal issues; it enables more control over your own life; it promotes critical thinking and an objective attitude; and it fosters respect for human diversity.

The academic major is rigorous in the requirement of core methodological courses, yet flexible in the freedom to choose from among a variety of substantive courses. The program also provides opportunities for practicum experiences in the community agencies or campus programs, and for research experiences in many areas of psychology. The University of Hawai'i chapter of Psi Chi (ΨΧ), the International Honors Society in Psychology, arranges for educational activities, sponsors social events, and provides mutual support for its members. In short, the student experience in psychology can be intellectually exciting and personally satisfying because, in the final analysis, psychology is about you!

Mission

The mission of the Psychology Department is to contribute to research in the field of psychology, support the community through our scholarly work and service and provide our students with rigorous coursework, practicum and research experiences.

Program Learning Outcomes

- Demonstrate knowledge of basic concepts in statistical analysis and be able to interpret and understand both qualitative and quantitative statistical analyses.
 - Goal 4: Scientific and Quantitative Reasoning
- Demonstrate knowledge of basic concepts and methods of psychological research; this includes defining or explaining concepts, collecting and analyzing data, presenting data in tables, conducting a scientific literature search, preparing a scientific research proposal, conducting research under the supervision of a faculty researcher.
 - Goal 1: Critical thinking
 - Goal 2: Information literacy
 - Goal 3: Communication
 - Goal 4: Scientific and Quantitative Reasoning
- Define, explain, and apply key terms and concepts in two of the following areas of Psychology: Developmental Psychology, Personality, Social Psychology, Abnormal Psychology.
 - Goal 1: Critical Thinking
 - Goal 5: Human Interaction and Cultural Diversity
- Define, explain, and apply key terms, theories, and concepts of two of the following areas of Psychology: Learning and Motivation, Sensation and Perception, Cognitive Psychology, Biopsychology.
 - Goal 1: Critical Thinking
 - Goal 2: Information Literacy
 - Goal 3: Communication
 - Goal 4: Scientific and Quantitative Reasoning
- Define, explain, and apply key terms, theories, and concepts in areas of specialization.
 - Goal 1: Critical thinking
 - Goal 2: Information literacy
 - Goal 3: Communication
 - Goal 4: Scientific and Quantitative Reasoning



- Goal 5: Human Interaction and Cultural Diversity
- Goal 6: Collaborative Skills and Civic Participation

Goals for Student Learning in the Major

- Upon completion of the major, students will have a basic understanding of the major theoretical orientations in psychology along with the major empirical findings.
- Psychology majors will be expected to study, review, and reflect on the role of evidence in supporting claims. They will be familiar with quantitative and qualitative research methods in psychology and be able to understand published research.
- Psychology majors will be expected to develop analytical and critical thinking skills and apply them to the field of psychology.

Contributions to the UH Hilo General Education Program

The Psychology Department offers several courses that fulfill general education area and integrative requirements. Students should consult the most current listing of certified general education courses available at the UH Hilo [General Education](#) website.

Prospects for Psychology Graduates

Students choose Psychology as an academic major to prepare for graduate school where they are educated to become professional psychologists, researchers, and professors; to train for working in related fields, such as counseling, education, management, or social work; or to gain skills useful for work in many other occupations. In general, Psychology is useful for any career that involves working with or relating to people and that means nearly every job in our society.

Special Aspects of the Program

Additionally, Psychology has many active research projects that include undergraduate researchers, such as studies in adolescent development, children's mental health services, stress and anxiety among civilian and military families, mental health, women's health, neuroscience, and animal behavior including work with endemic Hawaiian species and humpback whales.

Curricula

- [B.A. in Psychology Requirements](#)
- [Psychology \(PSY\) Courses](#)

B.A. in Psychology Requirements

Group 1. General Education Basic, Area, and Integrative Requirements

Students may choose to graduate under the [General Education Basic, Area, and Integrative](#) requirements and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (41 credits)

1. **Core (11)**
 - PSY 100 Survey Of Psy (3)
 - PSY 213 Statistical Techniques (4)
 - PSY 214 Research Methodology (4)
2. **Block I.** Choose **two courses** from the following list: (6)
 - PSY 320 Developmental Psy (3)
 - PSY 321 Psy Of Personality (3)
 - PSY 322 Social Psychology (3)
 - PSY 324 Abnormal Psychology (3)
3. **Block II.** Choose **two courses** from the following list: (6)
 - PSY 314 Learning & Motivation (3)
 - PSY 315 Sensation And Perception (3)
 - PSY 350 Cognitive Psychology (3)
 - PSY 352 Introduction to Biopsychology (3)
4. An additional minimum **18 credits** of 300- or 400-level [PSY courses](#), which must include at least **9 credits** of 400-level courses, with no more than **3 credits** of PSY 399 Directed Studies (To Be Arranged) and no more than 3 credits of PSY 499 Directed Studies (To Be Arranged).

Total Semester Hours Required for the B.A. in Psychology

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. Students must pass any course applied to the Psychology major with a grade of "C-" or better.
3. At least 45 credits must be earned in courses at the 300- or 400-level.
4. To earn a Bachelor of Arts degree in Psychology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
5. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
6. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
7. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Sociology

Department Chair: Marilyn Brown, Ph.D.

Email: marilyn@hawaii.edu

Social Sciences Division Office:

Office: University Classroom Building (UCB), Room 308

Tel: (808) 932-7100

Website: hilo.hawaii.edu/depts/sociology/

**Professors:**

- Marilyn Brown, Ph.D.

Associate Professors:

- Marina Karides, Ph.D.
- Alton Okinaka, Ph.D.

Assistant Professor:

- Lindy Hern, Ph.D.

Humans spend their entire lives in social groups of various sizes and types. Sociology is the scientific study of human social behavior. Sociologists study formal organizations and various informal social groupings, such as the structures of racial and ethnic groups, families, religious institutions, and gender. Their focus is on patterns of behavior that result from following the implicit rules of society and culture.

Mission

The mission of the UH Hilo Sociology program is to provide students with the basics of theoretical and applied sociology. These basics include the application of sociological theory and research methods to the understanding of social processes, organizations, groups, and institutions.

Goals for Student Learning

Sociology students develop a critical understanding of social events and processes, resting on an underlying appreciation of social theories and the insights these yield about the structure of societies, the processes embedded in these structures, the nature of social change, and how all of these affect people in their everyday lives. Sociology majors and minors should also develop basic skills in social research, equipping them to apply what they have learned in real-life settings. In-depth study of specific social groups and organizations such as the institutions of family, religion, education, polity, and the economy should create an understanding of the interconnectedness of social events and processes as well as how social research informs us and helps to develop understanding of causal processes.

The UH Hilo Sociology program provides students with broad preparation in the basics of scientific sociology. Both 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.

Prospects for Graduates

Graduates of the UH Hilo Sociology program are prepared to contribute to the operation and administration of both public and private social service agencies. They enter into a wide range of work roles, including family planning and counseling, law enforcement and corrections, case work, disability examiner, public relations, and more. The major also provides an excellent foundation for those who wish to continue their academic careers in a variety of fields including elementary and secondary education, social work, law, criminal justice, psychology, public health, and of course sociology.

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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 to match their personal interests and career objectives with the necessary courses and practical experiences.

Special Aspects of the Sociology Program

The program has two main options for students who want to apply what they are learning in the local community. For those interested in careers in social services or other applied Sociology fields, the internship program provides a supervised field experience working with professionals in the community. Students gain first-hand knowledge of the specific work situation, including its demands and rewards. At the same time they contribute to the work of the agency in which they are placed, making contacts and earning trust which often stand them in good stead when they are ready to seek employment locally. The Department also offers a research practicum in which students participate in a substantial research project. The practical application of research skills creates a better understanding of the strengths and limitations of social research, broadening the contribution the student will be equipped to make in both social service and more traditional academic careers.

The UH Hilo Sociology Club is strong and active. It organizes both social events and community service projects, providing a context both for building social ties among students and developing a fuller understanding of the community. Non-majors are welcome.

Curricula

- [B.A. in Sociology Requirements](#)
- [Sociology Minor](#)
- [Sociology \(SOC\) Courses](#)

B.A. in Sociology Requirements**Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011**

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements (and Assigned Credits) (35 credits)

1. SOC 100 Principles Of Sociology (3)
2. SOC 200 Career Opportunities in Soc (1)



3. SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
4. SOC 380 Methods Of Research (3)
5. SOC 390 Sociological Theory (3)
6. An additional minimum **9 credits** of 400-level [SOC courses](#)
7. An additional **12 credits** in SOC at any level

Total Semester Hours Required for the B.A. in Sociology

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Sociology, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Sociology Minor

Requirements (20 credits):

- SOC 100 Principles Of Sociology (3)
- SOC 200 Career Opportunities in Soc (1)
- SOC 280-280L Statistical Reasoning (3), Lab in Statistical Reasoning (1)
- SOC 380 Methods Of Research (3)
- SOC 390 Sociological Theory (3)
- And **6 credits** in additional [SOC courses](#) at the 300- or 400-level.

Business Administration and Economics

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College of Business and Economics Office:

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Professor Emeritus:

- Youngki Hahn, Ph.D., Economics
- David Hammes, Ph.D., Economics
- Hank Hennessey, Ph.D., Business Administration
- Stephen Hora, D.B.A., Management Science and Statistics

Professors:

- Kelly Burke, Ph.D., Management Information Systems

- Jerry Calton, Ph.D., Management
- Emmeline de Pillis, Ph.D., Management
- Krishna Dhir, Ph.D., Management Science
- Kimberly Furumo, Ph.D., Management Information Systems
- Terrance Jalbert, Ph.D., Finance
- Tam Vu, Ph.D., Interim Dean, Economics

Associate Professors:

- Thomas DeWitt, Ph.D., Marketing
- Gene Johnson, Ph.D., CPA, Accounting
- Keisuke Nakao, Ph.D., Economics

The Department of Business Administration and Economics offers students the opportunity to receive a Bachelor of Business Administration (BBA) degree that is fully accredited by the Association to Advance Collegiate Schools of Business (AACSB International). The program offers majors in Accounting and in General Business. Within the General Business major, students select a concentration area from Finance, Marketing, or General Management, Economics or Health Care Management. The program is divided into three components: General Education, the Pre-Business program, and the Professional Business program. Some General Education requirements may be satisfied with courses from the Pre-Business program, but no more than 60 of the degree's total of 121 credit hours may be in business topics. The University also places several graduation requirements on all baccalaureate degree programs, and these must be satisfied by candidates for the BBA (Please see the [Baccalaureate Degree Requirements](#).)

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 analysis. Following satisfactory completion of this program, students are admitted to the upper-division Professional Business program where they complete advanced courses in selected fields of study such as accounting, finance, marketing, management, management information systems, tourism, and quantitative business methods.

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 wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered, information that is available for each course in the [Course Listings](#) of this Catalog. To ensure progress toward graduation, **students are strongly encouraged to meet with an advisor each semester before registering.**

Mission

To assist individuals in acquiring the knowledge, attitudes and skills needed to be productive and responsible citizens in the global economy. The College serves students and communities primarily from the Island and State of Hawai'i, as well as students from the U.S. mainland and the Asia/Pacific region.

We are committed to:



- Providing a personalized, high-quality baccalaureate business and economics education
- Inspiring the development of ethical values and leadership skills within a context of cultural diversity
- Offering opportunities for hands-on learning
- Offering academic programs responsive to community needs
- Supporting faculty excellence in teaching, research and service, with primary emphasis in teaching

Goals for Student Learning in the Major

Business, BBA

Upon graduating, our students should possess a common core of knowledge and skills that enables them to:

- Demonstrate comprehension of the fundamental principles of essential business functions.
- Express ideas clearly, logically, and persuasively in written communication.
- Demonstrate the ability to identify, analyze, and decide on courses of action to resolve complex, unstructured problems, using appropriate tools and technology.

Admission Requirements

Before enrollment in upper-division (300-400-level) Business Administration courses, students majoring in either Business Administration major must have:

- Filed a formal declaration of intent to major in either General Business or Accounting at least four weeks in advance of scheduled early-registration;
- Completed 50 or more earned semester credit hours at the 100-level or higher;
- Attained a cumulative grade point average of 2.50 or higher on work completed at UH Hilo (transfer students meeting other requirements may be provisionally admitted to upper-division courses during their first semester at UH Hilo, but will be required to earn at least a 2.5 GPA on their first 12 semester hours of credit at UH Hilo for continued enrollment in upper-division business courses); and
- Successfully completed all course-specific prerequisites for each upper-division class attempted.

Career Prospects for Students

Students earning the BBA in General Business are prepared to become entry-level managers in a wide variety of private and public sector organizations. The BBA program is also a good choice for students interested in starting their own business upon graduation, since a primary focus is on smaller organizations and entrepreneurship in many of the courses at UH Hilo. Students may focus their elective coursework in specific areas such as finance, marketing, or information technology if they intend to specialize or seek certification in one of those fields upon graduation. The BBA is also an excellent preparation for advanced study in business.

The BBA in Accounting prepares students for professional careers in accounting and auditing, and satisfies the content-specific educational requirements for the CPA designation. The demand for graduates in accounting has continued to grow, and is forecast to remain strong throughout the next decade. This career offers excellent job and earning opportunities.

Special Aspects of the Program

Internships with local businesses and organizations are available to qualified students.

The College of Business and Economics sponsors the Lambda Psi chapter of the International Fraternity of Delta Sigma Pi ($\Delta\Sigma\Pi$), which is a professional fraternity organized to foster the study of business in universities; to encourage scholarship, social activity, and the association of students for their mutual advancement by research and practice; to promote closer affiliation between the commercial world and students of commerce; and to further a higher standard of commercial ethics and culture and the civic and commercial welfare of the community. In addition, the College sponsors the Accounting Club, which serves to provide a professional development and community outreach forum for students with interest in accounting as a professional career. Members gain the opportunity to meet and interact with members of the accounting profession from the State and local areas, and to gain first-hand exposure to career possibilities in the area.

The College also sponsors an active chapter of Beta Gamma Sigma ($B\Gamma\Sigma$), the premier honorary society for students of business, which inducts outstanding students from each year's graduating class.

Requirements for Students in Related Programs or Special Circumstances

Students pursuing Agribusiness, Recreational Management, or other major, minor, or certificate program that include some Business Administration courses, as well as other non-business students wishing to register for upper-division (300-400 level) Business Administration courses, must have:

- Completed 50 or more earned semester hours at the 100-level or higher at the time of initial enrollment;
- Successfully completed all course-specific prerequisites;
- Secured permission of the Business Administration department chair, who will consult with the course instructor; and
- Accumulated no more than 30 total credits at any level in courses offered by the Business Administration Department, including any courses for which registration is being requested in the current semester.

Curriculum

- [BBA in General Business](#)
- [BBA in Accounting](#)
- [Business Administration Minor](#)
- [Economics \(ECON\) Courses](#)
- [Economics Minor](#)
- [Asia-Pacific-US Economic Relations Certificate](#)
- [Business Administration Certificate](#)
- [International Studies Certificate, Tourism Concentration](#)
- [Finance Certificate](#)
- [Accounting Certificate](#)
- [Accounting \(ACC\) Courses](#)
- [Business \(BUS\) Courses](#)
- [Finance \(FIN\) Courses](#)
- [Management \(MGT\) Courses](#)
- [Marketing \(MKT\) Courses](#)
- [Quantitative Business Analysis \(QBA\) Courses](#)
- [Tourism \(TOUR\) Courses](#)



BBA in General Business

General Education Pre-Business Requirements

G1. Composition

- ENG 100 Composition I (3), ENG 100T Composition with Tutorial (3), ESL 100 Composition/Nonnative Speakers (3), or ESL 100T Composition/Non-nativeTutorial (3), with a "C" or better

G3. Quantitative Reasoning

- One MATH course numbered 125, 135, 205 or higher, with "C" or better

G6. Social Sciences

- One class from ANTH, PSY, or SOC with "C" or better

Note: All remaining General Education Requirements must also be met.

Pre Business Core Requirements (30 credits)

Each Pre-Business core course must be completed with a grade of "C" or better.

- ACC 201 Intro to Financial Accounting (3)
- ACC 202 Intro to Managerial Accounting (3)
- BUS 110 Freshmen Business Experience (3)
- BUS 240 Business Law (3)
- BUS 290 Critical Thinking (3)
- ECON 130 Intro To Microeconomics (3)
- ECON 131 Intro To Macroeconomics (3)
- Either:
 - ECON 300 Inter Macroecon Theory (3)
 - ECON 340 Money & Banking (3)
- ENG 209 Writing for Business (3) or ENG 287 Introduction to Rhetoric (3)
- QBA 260 Business Statistics (3)

Transfer students may substitute BUS 100 Intro To Business (3) for BUS 110 Freshmen Business Experience (3)

Professional Business Core Requirements (24 credits)

For initial enrollment in upper division (300-400 level) Business Administration students must have:

- Filed a formal declaration of intent to major in Business Administration by 4 weeks in advance of scheduled early registration
- Completed 50 or more earned semester hours at the 100 level or higher
- Attained a minimum GPA of 2.0 on work completed at UH-Hilo (transfer students meeting other requirements may be provisionally admitted during their first semester at UH-Hilo, but will be required to earn at least a 2.0 GPA on their first 12 credits at UH-Hilo for continued enrollment in upper division business courses.)
- Successfully completed all course specific prerequisites

Each Business core course must be completed with a grade of "C" or better.

- MGT 300 Mgt, Orgs & Human Behavior (3)

- MGT 333 International Business Mgt (3)
- MKT 310 Princ of Marketing (3)
- FIN 320 Prin Bus Finance (3)
- QBA 300 Operations Management (3)
- QBA 362 Mgt Information Systems (3)
- MGT 423 Business & Society (3)
- MGT 490 Strategic Mgt (3)

BUS 290 Critical Thinking (3) may be taken concurrently with courses that require it as a prerequisite.

General Business Major Concentrations (18 credits)

General Business students may select one of the following three areas of specialization for the remainder of their business coursework. Each concentration consists of six (6) courses and has choices in the area of concentration, as well as some unrestricted business electives. Each of the six concentration courses must be completed with a "C" or better. The concentrations are:

• Economics Concentration (18 credits)

- Microeconomic Requirement (choose one)
 - ECON 301 Inter Microecon Theory (3)
 - ECON 302 Managerial Economics (3)
- Macroeconomic Requirement (choose one of the below if not used for Pre-Business requirement)
 - ECON 300 Inter Macroecon Theory (3)
 - ECON 340 Money & Banking (3)
- Quantitative Requirement (choose one of the below)
 - ECON 390 Econometrics (3)
 - ECON 430 Quantitative Forecasting (3)
- Global Economic Requirement (choose one of the below)
 - ECON 360 International Trade & Welfare (3)
 - ECON 361 International Finance (3)
 - ECON 414 Global Topics in Game Theory (3)
- Applied Economics Requirement (choose one of the below)
 - ECON 310 Economic Development (3)
 - ECON 370 Government Finance (3)
 - ECON 380 Natural Resource Env Eco (3)
- Economic Elective (3) any one upper-division Economics course not used to meet any other requirement

• Finance Concentration (18 credits)

- FIN 321 Invest & Secur Analysis (3)
- FIN 322 Corporate Finance (3)
- FIN Elective
- FIN Elective
- ACC, BUS, FIN, MGT, MKT, QBA, TOUR Elective
- ACC, BUS, ECON, FIN, MGT, MKT, QBA, TOUR Elective

• **Health Care Management Concentration (18 credits, minimum 12 at the 300-400 level)** Students should take no more than two courses from each subject area. Courses to choose from include:

- ANTH 415 Medical Anth (3)
- ANTH 463 Global Health in Evol Perspect (3)
- COM 241 Health, Culture and Diversity (3)
- COM 430 Health Communication (3)
- NURS 350 Transcultural Care & Hlth Prom (3)



- NURS 359 Foundation of Health Promotion (3)
- NURS 370 Transcultural Health Care (3)
- NURS 372 Spirituality in Health Care (3)
- NURS 373 Gerontological Health Care (3)
- SOC 360 Health Care Policy (3)
- PHIL 323 Professional Ethics (3)
- PHIL 327 Bioethics (3)
- PSY 320 Developmental Psy (3)
- PSY 380 Health Psychology (3)

● **Management Concentration (18 credits)**

- Six courses chosen from **at least three** of the following: ACC, BUS, FIN, MGT, MKT, QBA, TOUR; or, one from ECON. No more than two courses from any one of the above disciplines.

● **Marketing Concentration (18 credits)**

- MKT 311 Marketing Management (3)
- MKT 315 Consumer Behavior (3)
- MKT 319 Market Research (3)
- MKT or TOUR Elective
- ACC, BUS, FIN, MGT, MKT, QBA, TOUR Elective
- ACC, BUS, ECON, FIN, MGT, MKT, QBA, TOUR Elective

General Electives

Additional courses required to meet the 121 credits required to graduate

Total Semester Hours Required for the B.B.A. in General Business

121 credits required.

Notes:

1. No more than 60 semester hours in business topics may be applied to any B.B.A. degree.
2. At least 24 credits of Business Administration coursework at the 300- or 400-level applied to any B.B.A. degree must be earned at UH Hilo.

BBA in Accounting

General Education Pre-Business Requirements

G1. Composition

- ENG 100 Composition I (3), ENG 100T Composition with Tutorial (3), ESL 100 Composition/Nonnative Speakers (3), or ESL 100T Composition/Non-nativeTutorial (3), with a "C" or better

G3. Quantitative Reasoning

- One **MATH** course numbered 125, 135, 205 or higher, with "C" or better
- QBA 260 Business Statistics (3), with "C" or better

G6. Social Sciences

- One class from **ANTH, PSY, or SOC** with "C" or better

Note: All remaining General Education Requirements must also be met.

Pre Business Core Requirements

Each Pre-Business core course must be completed with a grade of "C" or better.

- ACC 201 Intro to Financial Accounting (3)
- ACC 202 Intro to Managerial Accounting (3)
- BUS 110 Freshmen Business Experience (3)
- BUS 240 Business Law (3)
- BUS 290 Critical Thinking (3)
- ECON 130 Intro To Microeconomics (3)
- ECON 131 Intro To Macroeconomics (3)
- Either:
 - ECON 300 Inter Macroecon Theory (3)
 - ECON 340 Money & Banking (3)
- ENG 209 Writing for Business (3) or ENG 287 Introduction to Rhetoric (3)
- QBA 260 Business Statistics (3)

Transfer students may substitute BUS 100 Intro To Business (3) for BUS 110 Freshmen Business Experience (3).

Professional Business Core Requirements

For initial enrollment in upper division (300-400 level) Business Administration students must have:

- Filed a formal declaration of intent to major in Business Administration by 4 weeks in advance of scheduled early registration
- Completed 50 or more earned semester hours at the 100 level or higher
- Attained a minimum GPA of 2.0 on work completed at UH-Hilo (transfer students meeting other requirements may be provisionally admitted during their first semester at UH-Hilo, but will be required to earn at least a 2.5 GPA on their first 12 credits at UH-Hilo for continued enrollment in upper division business courses.)
- Successfully completed all course specific prerequisites

Each Business core course must be completed with a grade of "C" or better.

- MGT 300 Mgt, Orgs & Human Behavior (3)
- MGT 333 International Business Mgt (3)
- MKT 310 Princ of Marketing (3)
- FIN 320 Prin Bus Finance (3)
- QBA 300 Operations Management (3)
- QBA 362 Mgt Information Systems (3)
- MGT 423 Business & Society (3)
- MGT 490 Strategic Mgt (3)

Accounting Major Requirements

18 semester hours; each course must be completed with a grade of "C" or better.

The BBA in Accounting requires the successful completion of all core requirements for the BBA degree. Eighteen semester hours in Accounting must be earned in courses at the 300- or 400-level, in place of the 18 semester hours in business electives at the 300- or 400-level required as part of the **BBA in General Business** degree.

1. **Accounting Core: 15 semester hours as follows:**

- ACC 350 Intermediate Acc I (3)
- ACC 351 Intermediate Acc II (3)



- ACC 352 Individual & Business Taxation (3)
- ACC 353 Cost Accounting (3)
- ACC 454 Auditing (3)
- 2. **Accounting Electives: 3 semester hours from the following:**
 - ACC 355 Advanced Topics in Taxation (3)
 - ACC 358 Governmental Accounting (3)
 - ACC 400 Internship in Accounting (3)
 - ACC 494 Special Topics in Subject Matter (To Be Arranged)
(Varies with Topic)

- FIN 320 Prin Bus Finance (3)
- MKT 310 Princ of Marketing (3)
- MGT 425 Bus Planning for New Ventures (3)

A grade of "C" or better must be earned in these courses. Course prerequisites will be waived if the student has formally declared Business Administration as a Minor.

For initial enrollment in 300- or 400-level Business Administration courses, students pursuing a Business Administration minor must have:

1. Filed a formal declaration of intent to minor in Business Administration at least four weeks in advance of scheduled early-registration;
2. Attained a cumulative grade point average of 2.0 or higher on work completed at UH Hilo (transfer students meeting other requirements may be provisionally admitted to upper-division courses during their first semester at UH Hilo, but will be required to earn at least a 2.0 GPA.

Total Semester Hours Required for the B.B.A. in Accounting

121 credits required.

Notes:

1. The State of Hawai'i requires 150 semester hours of college to obtain a permit to practice as a Certified Public Accountant (CPA). Additional semester hours in business earned past the 121 semester hours required for the B.B.A. with Major in Accounting degree will apply towards this requirement.
2. Residence Requirement: B.B.A. candidates must complete at least 24 of the credits used to satisfy upper-division Business core, Accounting core, and Business or Accounting elective requirements while in residence at UH Hilo.

Economics Minor

Requirements (18 credits):

1. **Required (6):**
 - ECON 130 Intro To Microeconomics (3)
 - ECON 131 Intro To Macroeconomics (3)
2. **Electives:** 12 credits of 300- or 400-level **ECON courses** which should include one from each block:
 - *Block I:*
 - ECON 301 Inter Microecon Theory (3)
 - ECON 302 Managerial Economics (3)
 - ECON 305 Hist Of Econ Thought (3)
 - ECON 360 International Trade & Welfare (3)
 - ECON 370 Government Finance (3)
 - ECON 380 Natural Resource Env Eco (3)
 - *Block II:*
 - ECON 300 Inter Macroecon Theory (3)
 - ECON 310 Economic Development (3)
 - ECON 340 Money & Banking (3)
 - ECON 361 International Finance (3)

Business Administration Minor

Requirements (18 credits):

Students pursuing non-Business degrees earn a minor in Business Administration by successfully completing 18 semester hours:

- BUS 100 Intro To Business (3) **or** BUS 110 Freshmen Business Experience (3)
- ACC 201 Intro to Financial Accounting (3)
- ECON 130 Intro To Microeconomics (3)

Business Administration Certificate

Contact: CoBE Office
Phone: (808) 932-7272
Email: cobeuhh@hawaii.edu

The College offers the Certificate in Business Administration to people who have already earned a baccalaureate degree in an area other than business. The coursework nearly duplicates the minor in Business Administration and allows those graduates of other programs who wish to gain a formal credential testifying to their up-to-date business management skills and knowledge an opportunity to do so. It is especially useful to those already working in business or those intending to work in an organizational situation that would like to gain a well-balanced fundamental perspective on business. At least 50% of the course work must be completed at UH Hilo. All courses are currently available and offered regularly in the Bachelor of Business Administration Degree program.

Requirements (21 credits):

- ACC 201 Intro to Financial Accounting (3)
- ACC 202 Intro to Managerial Accounting (3)
- ECON 130 Intro To Microeconomics (3)
- FIN 320 Prin Bus Finance (3)
- MGT 333 International Business Mgt (3)
- MKT 310 Princ of Marketing (3)
- Any business elective at the 300- or 400-level.

BUS 290 Critical Thinking (3) may be taken concurrently with courses that require it as a prerequisite.

International Studies Certificate, Tourism Concentration

Contact: CoBE Office
Phone: (808) 932-7272 **Email:** cobeuhh@hawaii.edu

The International Studies Certificate integrates a wide variety of existing courses into a cohesive whole focusing on international issues. This program of study is designed to prepare students for career



opportunities in the new world system—a world system in which nongovernmental actors are proliferating, global communications networks multiplying, world travel expanding, and in which states are becoming increasingly interdependent. The Certificate is particularly useful for students pursuing careers in the Foreign Service, international institutions, nongovernmental international organizations, international business, and tourism. The International Studies Certificate aims both to ready students for careers in the new world system and to foster global understanding.

The International Studies Certificate requires two years of a foreign language with prerequisite preparation in General Education courses that emphasize world geography and culture. The core courses, also at the lower-division level, emphasize international political and economic structures and interrelationships. The student then chooses an area for concentrated study. Students can either choose to concentrate in the area of Tourism or in the area of International Politics (see listing under Political Science for [International Politics Certificate](#)). The concentrations are comprised of upper-division courses, which consider issues in a global context and stress cross-national understanding. The Certificate is notable for having a capstone seminar study or study abroad feature providing hands-on experience for the student.

The Tourism Concentration Option is intended to familiarize students with international travel and tourism in terms of the tourists themselves, their service providers, and the government policies that can facilitate or create barriers for travel or for tourism development. An interdisciplinary approach informs consideration of the economic, environmental, social and cultural aspects of international tourism. This option allows students to examine tourism from a broad policy perspective or from an enterprise perspective. It is useful for students pursuing careers in tourism hospitality businesses or other tourism-related enterprises and in governmental tourism-related organizations.

Requirements (49-52 credits):

1. **General Education Co-Requisites (12):**
 - Select **four courses** from:
 - ANTH 205 Cultural Anthropology (3)
 - GEOG 102 World Regional Geography (3)
 - GEOG 103 Geog And Contemp Soc (3)
 - HIST 151 World History to 1500 (3)
 - HIST 152 World History since 1500 (3)
2. **Program Requirements (22):**
 - First year language (8)
 - Second year language (8)
 - **Core courses (6):**
 - POLS 242 Intro To World Politics (3) **or** POLS 251 Intro to Comparative Politics (3)
 - ECON 210 Intro To Global Economy (3)
3. **Tourism Concentration Option (12):**
 - TOUR 317 Mkt & Mgt Of Travel & Tourism (3)
 - TOUR 320 Tourism Economics (3)
 - TOUR 340 Interntl Travel & Tourism Plcy (3)
 - And select **one course** from the following:
 - ANTH 323 Cultural & Social Change (3)
 - ECON 310 Economic Development (3)
 - ECON 360 International Trade & Welfare (3)
 - ECON 380 Natural Resource Env Eco (3)
 - GEOG 340 Intro to Land Use Planning (3)
 - MKT 310 Princ of Marketing (3)
 - MGT 333 International Business Mgt (3)
 - POLS 335 Envir Politics & Policy (3)
4. **Capstone Experience (3-6):** See an advisor for options.

Finance Certificate

Contact: CoBE Office
Phone: (808) 932-7272
Email: cobeuhh@hawaii.edu

The College of Business and Economics offers a Subject Certificate in Finance. The coursework allows undeclared majors, and those majoring in non-business programs at UH Hilo, to develop financial management skills and knowledge. The program is also appropriate for those who have previously earned a bachelor degree. At least 50% of the course work must be completed at UH Hilo. All courses are currently available and offered regularly in the Bachelor of Business Administration Degree program.

Requirements (18 credits):

- **Certificate Core courses are (each with a grade of C or better):**
 - ACC 201 Intro to Financial Accounting (3)
 - FIN 320 Prin Bus Finance (3)
 - FIN 321 Invest & Secur Analysis (3)
 - FIN 322 Corporate Finance (3)
 - Two [Finance](#) Elective courses (6) at the 300- or 400-level.

Accounting Certificate

Contact: CoBE Office
Phone: (808) 932-7272
Email: cobeuhh@hawaii.edu

The Certificate in Accounting demonstrates competence in the area's of accounting. The certificate is intended to provide students the knowledge and skills for a career in accounting and to prepare them for license and certification exams.

Requirements (18 credits):

- **Certificate Core courses (each with a grade of C or better):**
 - ACC 350 Intermediate Acc I (3)
 - ACC 351 Intermediate Acc II (3)
 - ACC 352 Individual & Business Taxation (3)
 - ACC 353 Cost Accounting (3)
 - ACC 454 Auditing (3)
 - And one additional [Finance](#), [Accounting](#) Elective at the 300- or 400-level. (3)

Asia-Pacific-US Economic Relations Certificate

The certificate in Asia Pacific- US Economic Relations provides non-economic majors with knowledge of Asia Pacific economies and their relations with the US in order to introduce students to the job markets and entrepreneurial opportunities in Asia Pacific countries.

Students in the following departments and programs might be interested in obtaining this certificate: business administration, political sciences, sociology, geography, agricultural economics, natural resource management, Hawaiian studies, and international students, especially those from the Asia-Pacific region.

Requirements (24 credits including Pre-Certificate Core):

- **Pre-Certificate Core (6):**



- ECON 130 Intro To Microeconomics (3) **and** ECON 131 Intro To Macroeconomics (3), **or**,
- ECON 100 Intro To Economics (3) **and** ECON 130 Intro To Microeconomics (3) (with consent of department chair)
- **Certificate Core (18):**
 - Select at least two from (6):
 - ECON 310 Economic Development (3)
 - ECON 360 International Trade & Welfare (3)
 - ECON 361 International Finance (3)
 - ECON 380 Natural Resource Env Eco (3)
 - ECON 430 Quantitative Forecasting (3)
 - Select at least one from (3):
 - ECON 330 Hawaiian Economy (3)
 - ECON 415 SE Asia-China Econ Relations (3)
 - ECON 416 Asia-Pacific Econ Integration (3)
 - Select at least one from (3):
 - Accounting: ACC 350 Intermediate Acc I (3), ACC 354 Business Software (3)
 - Finance: FIN 320 Prin Bus Finance (3)
 - Management: MGT 333 International Business Mgt (3)
 - Marketing: MKT 311 Marketing Management (3), MKT 333 International Marketing (3)
 - Tourism: TOUR 340 Interntl Travel & Tourism Plcy (3)

Daniel K. Inouye College of Pharmacy (DKICP) Undergraduate Program

Daniel K. Inouye College of Pharmacy (DKICP)

Email: pharmacy@hawaii.edu

Tel: (808) 933-2909

Fax: (808) 933-2974

Website: pharmacy.uhh.hawaii.edu/academics/baps/

Bachelor of Arts in Pharmacy Studies (BAPS) Program Description

Students earning the Bachelor of Arts in Pharmacy Studies (BAPS) degree attain broad and thorough knowledge in the liberal arts and basic sciences, as well as specialized education in the field of pharmacy, both academic and experiential in nature. The BAPS degree also acknowledges the achievement of students who complete a minimum of four years of college education, including rigorous course work in the basic and pharmacy sciences, on their path to the Doctor of Pharmacy (Pharm.D.) degree. Students with a BAPS degree are well positioned to take advantage of numerous educational and career opportunities in diverse areas, including positions in pharmacy, health care, or medicine, or may continue on in research, business, and academia. **This degree is not designed to lead to licensure as a professional pharmacist and is available only to students currently enrolled in the Pharm.D. program at the UH Hilo DKICP.**

Admissions

Students must apply and be accepted to the Doctor of Pharmacy degree program (Pharm.D.) at the University of Hawai'i at Hilo DKICP. In other words, this degree is **only** available to Pharm.D. students. [Complete application instructions for the Pharm.D. program](#) can be found online.

Curricula

- Pharmacy Studies
 - [B.A. in Pharmacy Studies Requirements](#)

- [Pharmaceutical Science \(PHPS\) Courses](#)

For information on the Daniel K. Inouye College of Pharmacy's graduate programs, visit DKICP's [graduate programs](#) section.

B.A. in Pharmacy Studies Requirements

Group 1. General Education Basic, Core, and Integrative Requirements

All students should consult with College of Pharmacy's academic advisors to ensure that they complete all requirements for graduation in a timely fashion.

Students entering UH Hilo or the PharmD program prior to Fall 2011 and wishing to earn the Bachelor of Arts in Pharmacy Studies must meet UH Hilo's requirements in effect prior to Fall 2011 for the Basic and Area categories of General Education as well as requirements in Writing Intensive and Hawai'i-Asia-Pacific categories, and all other graduation requirements. A list of these requirements is found on pages 33-37 of the [2010-2011 university catalog](#).

Students entering UH Hilo or the PharmD program in Fall 2011 and thereafter and wishing to earn the Bachelor of Arts in Pharmacy Studies must meet UH Hilo's requirements that go into effect in Fall 2011 for the Basic and Area categories of General Education as well as the Integrative requirements in Writing Intensive, Hawai'i-Pan Pacific, and Global and Community Citizenship, and all other graduation requirements. A list of these requirements is posted on the [General Education website](#).

Effective Fall 2011 the new policy for which requirements the student will follow for GE and graduation requirements are: 1) By default, all students will be admitted under the catalog in force at time entering UH Hilo. 2) Students transferring in to UH Hilo from another UH System Campus are eligible to continue their educational career under the requirements in force in the catalog year in which they entered the UH System, provided there has not been a break in enrollment of more than one semester.

Group 2. Major Requirements (65 credits)

1. First Professional Year: Fall (18)

- PHPS 501 Biochemistry - Biomolecules (2)
- PHPS 503 Pharmaceutical Calculations (2)
- PHPS 504 Pharmaceutical Immunology (3)
- PHPS 505 Pharmaceutics I (3)
- PHPS 540 Drug Action - Part I (2)
- PHPP 501 Intr Pharm Prac Experiential I (1)
- PHPP 510 Pharmacy Self Care I (2)
- PHPP 528 Pharmacy Comm & Culture (3)

2. First Professional Year: Spring (17)

- PHPS 502 Biochemistry - Metabolism (2)
- PHPS 506 Pharmaceutics II (3)
- PHPS 509 Applied Pathophysiology (3)
- PHPS 541 Drug Action - Part II (2)
- PHPP 502 Int Pharm Prac Experiential II (1)
- PHPP 508 Intro to Biostatistics (3)
- PHPP 511 Pharmacy Self Care II (2)

3. Second Professional Year: Fall (17)



- PHPS 511 Pharmacokinetics (3)
- PHPP 503 Intr Pharm Prac Experien III (1)
- PHPP 506 Int Pharm Prac Exp - Retail (1)
- PHPP 514 Evidence-Based Medicine (3)
- PHPP 515 Integrated Therapeutics I (7)
- PHPP 527 Drug Information (2)

4. Second Professional Year: Spring (17)

- PHPP 504 Intr Pharm Prac Experien IV (1)
- PHPP 516 Integrated Therapeutics II (7)
- PHPP 519 Health Care Systems (2)
- PHPP 520 Pharmacy Law and Ethics (3)
- PHPP 523 Wellness & Disease Prevention (2)
- Electives (2)

**Ka Haka 'Ula O Ke'elikōlani College of
Hawaiian Language Undergraduate
Programs**

Director: Keiki Kawai'ae'a, Ph.D.

Email: keiki@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/

Professors:

- Glenn Kalena Silva, Ph.D.
- William Pila Wilson, Ph.D.

Associate Professors:

- Makalapua Alencastre, Ed.D.
- Jason Iota Cabral, Ph.D.
- Kekoa Harman, M.A.
- Betty-Joann Noelani Iokepa-Guerrero, Ph.D.
- Kauanoē Kamanā, Ph.D.
- Keiki Kawai'ae'a, Ph.D.
- Larry Kimura, Ph.D.
- Hiapo K. Perreira, Ph.D.
- Yumiko Ohara, Ph.D.
- Scott Saft, Ph.D.

Assistant Professors:

- Kananiohea Māka'imoku, M.A.

Vision and Mission of the College

'O ka 'ōlelo ke ka'āo ka mauili.

Language is the fiber that binds us to our cultural identity.

UH Hilo's College of Hawaiian Language, Ka Haka 'Ula O Ke'elikōlani, was established in 1998 as the world's first college through the medium of Hawaiian. The College is named in honor of Ruth Ke'elikōlani Keanolani Kanāhoahoa, the 19th century high chiefess known for her strong advocacy of Hawaiian language and culture.

The mission of the college is first to seek the revitalization of the Hawaiian language and culture, endangered by the dominance of Western culture in the twentieth century, so that both language and culture once again become commonplace in both educational and non-

educational contexts in Hawai'i. Secondly, the college seeks to aid other indigenous peoples who wish to revitalize their own endangered languages and cultures.

Academic Division

Division Chair: Hiapo K. Perreira, Ph.D.

Email: hiapokey@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/

The academic programs division of Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language emphasizes Hawaiian language, traditional Hawaiian culture, indigenous language and culture revitalization, linguistics and education in a Hawaiian language medium school environment. It also includes a P-12 laboratory school program. The college currently oversees the following degree and certificate programs:

- B.A. in Hawaiian Studies
 - Minor in Hawaiian Studies
 - Hawaiian Culture Certificate
 - Hawaiian Language Certificate
 - Multidisciplinary Hawaiian Studies Certificate
- B.A. in Linguistics
 - Minor in Linguistics
 - Contemporary Indigenous Multilingualism Certificate

For information on the College's graduate programs, including the [Kahuawaiola Indigenous Teacher Education Program](#), please see the graduate section of this catalog.

Hawaiian Studies

Department Chair: Jason Iota Cabral, Ph.D.

Email: jasoncab@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/

The Hawaiian Studies Program is one of the most innovative baccalaureate programs at the University of Hawai'i at Hilo, offering two options for study, each focused on a Hawaiian-based cultural continuum:

- Perpetuating (Continuing) the Hawaiian culture within a Hawaiian language context; and
- Monitoring the direction of Hawaiian culture.

The program basically serves four groups of students:

- Those majoring in Hawaiian Studies;
- Those pursuing certificates in Hawaiian language, culture, or multi-disciplinary studies;
- Those pursuing a minor in Hawaiian Studies;
- Those taking courses for their own interest and to fulfill University requirements.

In addition, the program provides a unique educational opportunity for students interested in culture, economics, politics, sociology, linguistics, music, anthropology, biology, geography, history, and dance.

Mission

The primary mission of the B.A. program in Hawaiian Studies, developed mainly through its "perpetuating (continuing) the culture" option, is to produce fluent Hawaiian language speakers who embody Hawaiian culture in their lives and who are committed to perpetuating Hawaiian



language and culture. A secondary mission of the program, developed mainly through its “monitoring the culture” option, is to produce graduates with a broad knowledge of Hawaiian language and culture in relationship to the social or natural environment of Hawai‘i.

Student Learning Outcomes

1. Demonstrate oral and written comprehension and grammatically correct use of Hawaiian at the ACTFL levels as follows:
 - o HAW 101-102 Elementary Hawaiian I (4), Elem Hawaiian II (4) (Novice High)
 - o KHAW 103-104 First Lvl Trans Hawn Immersion (4), First Lvl Partial Hawn Immers (4) (Intermediate Low)
 - o KHAW 203-204 Second Lvl Univ Hawn Immers I (4), Second Lvl Univ Hawn Immers II (4) (Intermediate Mid)
 - o KHAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4) (Intermediate High)
 - o KHAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4) (Advanced Low)
2. Speak and write with a degree of fluency adequate to carry on a life and career speaking Hawaiian.
3. Apply knowledge of the language to give an effective speech in Hawaiian (minimally at the ACTFL level of Advanced Low) and to write an effective academic paper in Hawaiian of at least four thousand words on pertinent topics that is organized succinctly with an introduction, body, and conclusion that includes footnotes and citations.
4. Explain and apply to concrete situations the Hawaiian outlook on the world, as expressed in the basic philosophy of the college, Ke Kumu Honua Mauli Ola.
5. Practice appropriate Hawaiian cultural behavior (e.g. protocol, body language, participation in the ceremonies of Ka Haka ‘Ula O Ke ‘elikōlani).
6. Locate and utilize library, on-line and community resources to write a cohesive academic paper, prepare a presentation, or give appropriate diversiform speeches.
7. Identify and explain major aspects of the grammatical & phonological structure of a sample of Hawaiian.
8. Identify, explain, and perform major aspects of Hawaiian chant (oli), music (puolo), and dance (hula) within respective courses and College-wide activities.
9. Identify specific important aspects of the evolution of the Hawaiian language (both historically and contemporarily), and its relationship to the current cultural, social, and political standing of Hawaiians.
10. Identify and explain Hawaiian cultural concepts specifically related to the physical Hawaiian environment as exhibited in course syllabi of HWST 111 Hawaiian ‘Ohana (3), 211, and 213.

The Atmosphere

Students in the Hawaiian Studies Program come from several islands and play a key part in its direction. The classroom atmosphere stresses mastery of Hawaiian culture and its active use, particularly the Hawaiian language. All upper-division Hawaiian culture, linguistics and performing arts courses are taught in Hawaiian. The program also emphasizes the importance of contact with the community. Toward this end, majors are required to take at least one course taught by a community expert and to complete the exiting seminar class that focuses on community involvement. Permeating Hawaiian Studies in Hilo is a sense of responsibility for Hawaiian culture, a commitment that is shared by faculty and students alike. Those interested and concerned with Hawai‘i’s future will find Hilo to be a stimulating and enjoyable place to live and study.

- **Academic Advisor**—Students are encouraged to make an appointment with the academic advisor to go over scheduling of classes and to discuss any difficulties they are experiencing in their classes and/or with their instructors. Students are also directed to tutoring programs to assist them in their studies and to other counseling programs on campus to assist them with personal issues.
- **Hawaiian Language Tutors**—Hawaiian language tutors are available.
- **Guest Speakers**—Presentations by a wide variety of guest speakers on Hawaiian language, culture, social and political topics are held each semester.
- **Discussions**—Student/faculty “talk-story” sessions about current issues within the Native Hawaiian community are also held each semester.
- **Internships and Volunteer Opportunities**—To assist students in career planning and in learning about upcoming work/volunteer opportunities in a Hawaiian Studies field, a program including internships to Hawaiian language places of employment such as the ‘Aha Pūnana Leo, [Hale Kuamo‘o/Hawaiian Language Center](#), [‘Imiloa Astronomy Center of Hawai‘i](#), Hawai‘i Department of Education, and Lyman Museum is currently nearing completion.

The Future

Hawaiian Studies is a new field that plays an important role in the direction of life in Hawai‘i. In response to amendments to the Hawai‘i State Constitution, public schools and government departments are presently developing programs to promote Hawaiian culture, language and history for the general public, in addition to implementing new programs for people of Hawaiian ancestry.

There are jobs in the ministry, law, land surveying, the entertainment industry, education, agriculture, journalism, the media, fish and game management, and social services that require a background in various aspects of Hawaiian Studies. In the private sector, individuals are establishing businesses in food and beverage, fashion, publishing, and telecommunications with a Hawaiian Studies foundation. There are many exciting opportunities now and in the future for those dedicated to the goal of Hawaiian Studies: meeting the rapidly increasing demand for Hawaiian language, knowledge, skills, and expertise in all areas of social, economic, and political life in Hawai‘i.

Currently, the area of greatest expansion is found in schools taught entirely through Hawaiian. These Hawaiian medium/immersion programs are conducted by the ‘Aha Pūnana Leo and the Hawai‘i State Department of Education. The ever increasing need for teachers and curriculum for these programs provides fine employment opportunities for those committed to Hawaiian cultural continuity.

The Hale Kuamo‘o Center for Hawaiian Language and Culture Through the Medium of Hawaiian provides special support services for Hawaiian education programs. The creation and expansion of the center, together with the Hawaiian language and culture efforts throughout the UH system, have created a demand for new faculty and staff with Hawaiian Studies credentials.

Clearly, opportunities in the field of Hawaiian Studies are both broad and limitless, because Hawaiian Studies is part of a major change in modern Hawaiian society. Today, people are actively cultivating that which is Hawaiian, not only on the job, but at home and in the community as well. Hawaiian Studies will help you to fit into the Hawai‘i of the future. And because this change of attitude is not limited to Hawai‘i, but is found throughout the Pacific and the world, Hawaiian Studies will help graduates to relate better to others on a global level. Hawaiian Studies is



a field with a bright future!

A minimum of 120 semester hours is required for the B.A. degree. Majors must fulfill 41 to 43 semester hours and may choose to emphasize either of the two primary options of the program. All semester hours must be completed with a grade of "C" or better. The minor requires 23 semester hours. Certificates require from 19 to 23 semester hours.

Curricula

- B.A. in Hawaiian Studies Requirement
- Hawaiian Studies Minor
- Hawaiian Culture Certificate
- Hawaiian Language Certificate
- Multidisciplinary Hawaiian Studies Certificate
- Hawaiian Language (HAW) Courses
- Hawaiian Studies (HWST) Courses
- Ke'elikōlani Education (KED) Courses
- Ke'elikōlani Hawaiian Language (KHAW) Courses
- Ke'elikōlani Hawaiian Studies (KHWS) Courses
- Ke'elikōlani Indigenous Language (KLAN) Courses
- Ke'elikōlani Indigenous Studies (KIND) Courses

B.A. in Hawaiian Studies Requirement

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (43 credits)

Option I (Continuing the Culture)

1. Required courses (26-28 credits)

- KHAW/HAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4)
- KHAW/HAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4)
- KHAW/HAW 490 Base-level Fluency Hawn Med Ed (1) **or** KHAW/HAW 333 Applied Skills (3)
- HWST 205 Hawaiian Music in Action (2)
- KHWS/HWST 405 Hana No'eau (1)
- HWST 496 Hawaiian Studies Seminar (3)
- HWST 111 Hawaiian 'Ohana (3) **or** HWST 176 Hist & Dev Of Hawn Music (3) **or** HWST 211 Hawaiian Ethnobotany (3) **or** HWST 213 Hawaiian Ethnozoology (3)

2. Electives (15 credits)

- 12 semester hours selected from either (A) or (B) or (C):
 - (A) *Language Emphasis*

- KHAW/HAW 452 Translation into Hawaiian (3)
- KHAW/HAW 453 Hawn Phonetics & Phonol (3)
- KHAW/HAW 454 Hawn Morphology & Syntax (3)
- KHAW/HAW 455 Hawaiian: Polynesian Lang (3)
- KHWS/HWST 461 Pana Hawai'i (3)
- KHWS/HWST 462 Haku Mele (3)
- (B) *Performing Arts Emphasis*
 - KHWS/HWST 461 Pana Hawai'i (3)
 - KHWS/HWST 462 Haku Mele (3)
 - KHWS/ HWST 471 Mele 'Auana (3)
 - KHWS/HWST 472 Hula 'Auana (3)
 - KHWS/HWST 473 Oli/Mele Kahiko (3)
 - KHWS/HWST 474 Hula Kahiko (3)
- (C) *Oratory and Literature Emphasis*
 - KHWS/HWST 461 Pana Hawai'i (3) **or** KHWS/HWST 462 Haku Mele (3)
 - KHWS/HWST 463 Intro Hawn Narrative Lit (3)
 - KHWS/HWST 464 Hawaiian Composition (3)
 - KHWS/HWST 465 Ha'i'olelo Ku'una (3)
 - KHWS/HWST 473 Oli/Mele Kahiko (3)
- And **3 credits** taken from any 300- or 400-level [KHAW/HAW](#) or [KHWS/HWST](#) course.

Option II (Monitoring the Culture)

1. Required courses (26-28 credits)

- KHAW/HAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4)
- KHAW/HAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4)
- KHAW/HAW 490 Base-level Fluency Hawn Med Ed (1) **or** KHAW/HAW 333 Applied Skills (3)
- HWST 111 Hawaiian 'Ohana (3)
- HWST 205 Hawaiian Music in Action (2)
- KHWS/HWST 405 Hana No'eau (1)
- HWST 496 Hawaiian Studies Seminar (3)

2. Electives (15 credits)

- 12 semester hours selected from either (A) or (B) below, at least 9 of which must be in courses numbered 300 and above. Special topics and other courses pertaining to Native Hawaiians or Hawai'i also may be counted as electives, if previous permission is obtained from the department chair.
 - (A) *Social Environment*
 - ANTH/ENG/LING 347 Pidgins And Creoles (3)
 - ANTH 357 Change in The Pacific (3)
 - ANTH 385 Hawn & Pacific Prehistory (3)
 - ANTH 386 Hawaiian Culture Before 1819 (3)
 - ANTH 387 Modern Hawn Cult 1819-Present (3)
 - ECON 330 Hawaiian Economy (3)
 - ENG 323 The Literature of Hawai'i (3)
 - HWST 175 Intro Music Of Polynesia (3)
 - HWST 176 Hist & Dev Of Hawn Music (3)
 - HIST 284 History of Hawaii (3)
 - HIST 316 Pacific History I: To 1900 (3)
 - HIST 317 Pacific History II: From 1900 (3)
 - HIST 332 Hawaiian Kingdom (3)
 - HIST 333 Twentieth Century Hawaii (3)
 - KANT 486 Mo'omeheu Hawai'i Ku'una (3)
 - POLS 337 Politic of Hawaii: State/Local (3)
 - SOC 370 Political Economy of Hawai'i (3)



- (B) *Natural Setting*
 - BIOL/MARE 156 Nat Hist & Conservatn Hawn Isl (3)
 - BIOL/MARE 156L Nat History Field Trips (1)
 - BIOL/MARE 171L Introductory Biology I Lab (1)
 - GEOG/PHYS 120 Weather & Climate Hawaii (3)
 - GEOG 332 Geog Of Hawaiian Islands (3)
 - GEOL 205 Geology Of Hawaiian Islands (3)
 - HWST 211 Hawaiian Ethnobotany (3)
 - HWST 213 Hawaiian Ethnozoology (3)
 - KHWS/HWST 461 Pana Hawai'i (3)
 - MARE 201L Oceanography Lab (2)
 - MARE 325 Coral Reef Ecology (3)
 - MARE/BIOL 371L Bio Of Marine Invertebrate Lab (1)
 - MARE 372L Biology of Marine Plants Lab (1)
- And **3 credits** taken from any 300- or 400-level [KHAW/HAW](#) or [KHWS/HWST](#) course

Total Semester Hours Required for the B.A. in Hawaiian Studies:

120 credits required.

Notes

1. Students must earn credit for KHAW/HAW 490 Base-level Fluency Hawn Med Ed (1) and at least a C or better in all other courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Hawaiian Studies, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Hawaiian Studies Minor

The Hawaiian Studies Minor is designed for students pursuing a degree other than Hawaiian Studies who are interested in Hawaiian language and culture.

Requirements (23 credits):

1. **Required Courses (11)**
 - 8 semester hours taken from any Hawaiian Language course not including HAW 101-102 and HAW 105
 - One of the below courses (3)
 - HWST 111 Hawaiian 'Ohana (3)
 - HWST 176 Hist & Dev Of Hawn Music (3)
 - HWST 211 Hawaiian Ethnobotany (3)
 - HWST 213 Hawaiian Ethnozoology (3)
2. **Electives (12)**
 - 12 credits selected from any 300- or 400-level requirement or

elective of the [B.A. in Hawaiian Studies](#) Options I or II

Note: Students in the [B.A. in Hawaiian Studies](#) program are not eligible to pursue the minor, since the minor is designed for students in other degree programs. Students pursuing the minor may also pursue certificates offered within Ka Haka 'Ula O Ke'elikōlani.

Hawaiian Culture Certificate

Contact: Jason Iota Cabral, Ph.D.

Email: jasoncab@hawaii.edu

Requirements (19 credits):

1. **Required Courses (4)**
 - KHAW 104 First Lvl Partial Hawn Immers (4) **or** HAW 201 Intermediate Hawaiian I (4) **or** any higher level language course equaling 4 credits
2. **Core Electives (3)**
 - 3 credits taken from:
 - HWST 111 Hawaiian 'Ohana (3)
 - HWST 176 Hist & Dev Of Hawn Music (3)
 - HWST 211 Hawaiian Ethnobotany (3)
 - HWST 213 Hawaiian Ethnozoology (3)
3. **Related Electives (12)**
 - 12 credits taken from:
 - ANTH 385 Hawn & Pacific Prehistory (3)
 - ANTH 386 Hawaiian Culture Before 1819 (3)
 - ANTH 387 Modern Hawn Cult 1819-Present (3)
 - HWST 205 Hawaiian Music in Action (2)
 - KHWS/HWST 461 Pana Hawai'i (3)
 - HWST/KHWS 471 Mele 'Auana (3)
 - KHWS/HWST 472 Hula 'Auana (3)
 - KHWS/HWST 473 Oli/Mele Kahiko (3)
 - HWST 474 Hula Kahiko (3)
 - HIST 284 History of Hawaii (3)
 - other courses from the core elective list.

Notes: The Certificate in Hawaiian Culture may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared once or more than once between this certificate and other degrees and certificates on campus, but no more than 9 credits can be shared between the Certificate in Hawaiian Culture and any single one of the following: the [Hawaiian Studies B.A.](#), the [Certificate in Hawaiian Language](#), the [Certificate in Multidisciplinary Hawaiian Studies](#).

Upon agreement between Ka Haka 'Ula O Ke'elikōlani and I Ola Hāloa at Hawai'i Community College (Hawai'i CC), up to six semester hours in courses at the 100 level and above taken in the Hawai'i CC Hawai'i Lifestyles Degree Program may be applied. Students should speak to a Hawaiian Studies advisor about the process for receiving permission to apply such courses to this certificate and for enrolling in such courses.

Hawaiian Language Certificate

Contact: Jason Iota Cabral, Ph.D.

Email: jasoncab@hawaii.edu



Requirements (23 credits)

1. Required Courses (7)

- KHAW 204 Second Lvl Univ Hawn Immers II (4) **or** KHAW 233 Second Level Hawn for Speakers (4)
- LING 102 Introduction to Linguistics (3)

2. Electives (16)

- 16 credits taken from those below or others approved by the Hawaiian Studies Department Chair with no less than 6 credits through Hawaiian:
 - KHAW/HAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4)
 - KHAW/HAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4)
 - KHAW/HAW 452 Translation into Hawaiian (3)
 - KHAW/HAW 453 Hawn Phonetics & Phonol (3)
 - KHAW/HAW 454 Hawn Morphology & Syntax (3)
 - KHAW/HAW 455 Hawaiian: Polynesian Lang (3)
 - KHAW/HAW 494 Special Topics in Subject Matter (To Be Arranged)
 - KHAW/HAW 499 Directed Studies (To Be Arranged)
 - KHWS/HWST 462 Haku Mele (3)
 - KHWS/HWST 463 Intro Hawn Narrative Lit (3)
 - KHWS/HWST 464 Hawaiian Composition (3)
 - KHWS/HWST 465 Ha'i'olelo Ku'una (3)
 - KIND 240 Culture Revitalization Movemnt (3)
 - LING 351 Method Foreign Lang Tchg (3)
 - LING 442 Languages in Hawai'i (3)

Note: Students pursuing a [B.A. in Hawaiian Studies](#) may also pursue the Certificate in Hawaiian Language provided they do not cross count KHAW/HAW 303-304 Third Level Hawaiian I (4), Third Level Hawaiian II (4) and KHAW/HAW 403-404 Fourth Level Hawaiian I (4), Fourth Level Hawaiian II (4). The Certificate in Hawaiian Language may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared once or more than once between this certificate and other degrees and certificates on campus, but no more than 9 credits can be shared between the Certificate in Hawaiian Language and any single one of the following: the [Hawaiian Studies B.A.](#), the [Certificate in Hawaiian Culture](#), the [Certificate in Multidisciplinary Hawaiian Studies](#).

**Multidisciplinary Hawaiian Studies
Certificate**

Contact: Jason Iota Cabral, Ph.D.
Email: jasoncab@hawaii.edu

Requirements (26 credits):

1. Required Courses (8)

- HAW 101-102 Elementary Hawaiian I (4), Elem Hawaiian II (4) **or** any higher numbered Hawaiian Language course (8)

2. Core Electives (3)

- 3 semester hours taken from:
 - HWST 111 Hawaiian 'Ohana (3)
 - HWST 176 Hist & Dev Of Hawn Music (3)
 - HWST 211 Hawaiian Ethnobotany (3)
 - HWST 213 Hawaiian Ethnozoology (3)

3. Related Electives (15)

- 15 semester hours with no more than 6 semester hours of the same alpha
 - Courses taught through English in the Monitoring the Culture track of the [Hawaiian Studies B.A.](#)
 - Courses pertaining to Native Hawaiians or Hawai'i, including courses taught through Hawaiian, if previous permission is obtained from the Hawaiian Studies department chair

Note: The Certificate in Multidisciplinary Hawaiian Studies may be pursued by Hawaiian Studies and other discipline majors and by those pursuing any other certificate or certificates at UH Hilo. Credits may be shared once or more than once between this certificate and other degrees and certificates on campus, but no more than 9 credits can be shared between the Certificate in Multidisciplinary Hawaiian Studies and any single one of the following: the [Hawaiian Studies B.A.](#), the [Certificate in Hawaiian Culture](#), the [Certificate in Hawaiian Language](#).

Linguistics

Coordinator: Scott Saft, Ph.D.
Email: saft@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/

- Yumiko Ohara, Ph.D.
- Scott Saft, Ph.D.
- William Pila Wilson, Ph.D.
- Jason Iota Cabral, Ph.D.
- Kauanoe Kamanā, Ph.D.

Linguistics is the scientific study of language, examining it both as an abstract system and in its psychological and sociocultural contexts. Linguistics focuses on how the human mind structures, processes, and acquires language and on how language is an integral part of the cultural patterns of human interaction. With the central role played by language in the social world, linguistics is situated at the intellectual intersection of the humanities and the sciences, including the social, biological, and behavioral sciences. Accordingly, students receive broad training that cuts across and breaks down traditional boundaries between disciplines.

Mission

The mission of the B.A. program in Linguistics is to provide students with the fundamental skills to analyze the structure of language, its place in the mind, and its role in society. Located amidst one of the most developed efforts in indigenous language revitalization in the world, the program seeks to support multilingual education and promote international cooperation while preparing students for graduate study in linguistics as well as for careers in fields such as education, marketing, publishing, and translation.

Student Learning Outcomes

The Bachelor of Arts degree in Linguistics provides students with a broad introduction to the field. Upon successful completion of their degree, students will be able to:

1. Explain the major academic theories of language with a focus on what they say about the relationship between language and human beings.
2. Through the study of phonetics and phonology, demonstrate knowledge of how sound patterns work and analyze phonological data.
3. Through the study of morphology and syntax, describe the structure



of words and sentences and analyze morphological and syntactic data.

4. Demonstrate basic knowledge of the semantic and pragmatic properties of languages and analyze semantic and pragmatic data.
5. Through the study of discourse analysis, analyze data to explain how language works in discourse.
6. Identify structural and cultural features of languages relevant in the Hawai'i Pan Pacific such as Hawaiian, Japanese, Chinese, English, and Hawai'i Creole English.
7. Explain the relationship among language, culture, and society and critically evaluate how language plays a central role in social and political issues such as gender and racial discrimination, immigration attitudes and laws, and educational policies.
8. Locate and utilize reliable scholarly information in academic journals and books as a part of engaging in academic linguistic research and write a cohesive research paper of approximately four thousand words on a pertinent linguistic topic that is organized succinctly with at least an introduction, body, and conclusion and that includes foot/endnotes and citations.
9. Employ audiovisual materials and appropriate technology such as PowerPoint as part of a succinctly organized ten-minute presentation of linguistic research findings to an audience.
10. Demonstrate a working knowledge of two languages other than English.

Prospects for Linguistics Graduates

Students majoring in Linguistics will develop skills that will be valuable in many fields including:

- computer programming
- artificial intelligence
- elementary education, as a teacher or counselor
- secondary education as a teacher, professor, administrator
- teaching English as a second language either in the United States or abroad
- translation and interpretation
- language documentation of and fieldwork on indigenous and minority languages
- foreign language teaching
- publishing, as a technical writer or a journalist
- standardized testing
- lexicography (constructing and working on dictionaries)
- language consultant, assisting in such fields as law and medicine
- speech therapy
- foreign service, as a diplomat or embassy administrator
- other governmental work, such as the FBI, CIA, etc.

Graduates from the UH Hilo Linguistics Program have continued on to earn graduate degrees in linguistics at the master's and doctoral level, as well as in other areas of specialization related to language and language teaching.

Contributions to the UH Hilo General Education Program

Linguistics is an important component of a liberal arts education. The Linguistics Program recommends Linguistics 102: Introduction to Linguistics to students wishing to choose a linguistics course to fulfill part of their General Education requirements. A background in linguistics will be useful for majors in anthropology, English, foreign languages, Japanese Studies, Hawaiian Studies, psychology, and communication, as well as for students seeking licensure or certificates in education,

Hawaiian, and Teaching English as a Second Language.

Special Aspects of the Program

The University of Hawai'i at Hilo is one of only a few colleges and universities in the United States to offer a bachelor of arts in linguistics. Students learn about linguistics in a unique educational environment that is greatly influenced by the cultures and languages of Polynesia, Micronesia, and Asia. The Linguistics Program features a broad range of courses in both theoretical and applied linguistics, including courses related to language learning and teaching. The program also provides interested students with specialized courses in Hawaiian and Japanese linguistics, as well as in the linguistics of indigenous languages in different parts of the world.

Curricula

- [B.A. in Linguistics Requirements](#)
- [Linguistics Minor](#)
- [Contemporary Indigenous Multilingualism Certificate](#)
- [Linguistics \(LING\) Courses](#)

B.A. in Linguistics Requirements

Group 1. General Education Basic, Area, and Integrative Requirements in effect Fall 2011

Students may choose to graduate under the [General Education Basic, Area, and Integrative requirements](#) and [graduation requirements](#) in force at the time they entered the UH System, when they entered UH Hilo, or when they graduate, provided there is no break in enrollment.

Students should meet with their academic advisor to ensure that they enroll in courses that will enable them to meet these requirements as well as requirements for the major and for graduation. Some courses may meet both General Education requirements and major requirements.

The new GE basic, core, and integrative requirements and lists of certified courses are posted on the [General Education website](#).

Group 2. Major Requirements and Assigned Credits (46 credits)

1. **Core Courses**
 - LING 102 Introduction to Linguistics (3)
 - LING 311 Phonetics and Phonology (3)
 - LING 321 Morphology And Syntax (3)
 - LING 490 Res and Methods in Linguistics (3)
2. Select one of the 3 areas below as an area of concentration and take at least 3 courses in that area. From the other 2 areas, take at least 1 course. (15 credits)
 - **Structure/Grammar**
 - LING 345 Historical & Comparative Ling (3)
 - ENG 324 Modern English Grammar & Usage (3)
 - LING 410 Semantics & Pragmatics (3)
 - JPNS 451 Structure Of Japanese I (3)
 - JPNS 452 Structure Of Japanese II (3)
 - KHAW 453 Hawn Phonetics & Phonol (3)
 - KHAW 454 Hawn Morphology & Syntax (3)
 - **Applied/Sociolinguistics**



- LING 347 Pidgins And Creoles (3)
 - LING 356 Language and Gender (3)
 - LING 412 Discourse Analysis (3)
 - LING 432 Critical Applied Linguistics (3) ¹
 - LING 442 Languages in Hawai'i (3) ¹
 - ANTH 331 Lang in Culture & Society (3)
 - ENG 350 Second Lang Acquisition Theory (3)
 - JPNS 345 Methods for Teaching Japanese (3)
 - **Language Maintenance, Revitalization, and Policy**
 - KIND 240 Culture Revitalization Movemnt (3)
 - LING 432 Critical Applied Linguistics (3) ¹
 - LING 442 Languages in Hawai'i (3) ¹
 - LING 434 Indigenous Languages of the US (3)
 - LING 445 Explor Bilingual & Immers Ed (3)
 - KHAW 455 Hawaiian: Polynesian Lang (3)
 - HWST 496 Hawaiian Studies Seminar (3)
3. **Three** additional semester hours in Linguistics (or other related and approved field) at the 300- or 400-level (3).
4. 16 university credits in second/auxiliary language study, 4 credits of which must be in a different language from the other credits. In certain circumstances, students may substitute demonstrated fluency in a second/auxiliary language in lieu of up to 8 credits. (16)

¹ Note: Courses are listed in two areas but count toward only one.

Total Semester Hours Required for the B.A. in Linguistics

120 credits required.

Notes

1. Students must earn at least a 2.0 GPA in courses required for the major.
2. At least 45 credits must be earned in courses at the 300- or 400-level.
3. To earn a Bachelor of Arts degree in Linguistics, students must fulfill the requirements for the major **and** meet all of the University's other baccalaureate degree requirements. (Please see the [Baccalaureate Degree Requirements](#) in this Catalog.)
4. Students wishing to make timely progress toward graduation are urged to pay careful attention to all degree requirements.
5. In addition, when planning a schedule of courses, it is imperative to be aware of course prerequisites and the frequency with which courses are offered. This information is available in the [course listings](#) in this Catalog.
6. To ensure progress toward degree completion, **students are urged to meet with an advisor each semester before registering.**

Linguistics Minor

Requirements (26 credits):

1. A total of **18 credits** of linguistics courses including:
 - LING 102 Introduction to Linguistics (3)
 - LING 311 Phonetics and Phonology (3) **or** LING 321 Morphology And Syntax (3)
 - And **12 credits** in [LING courses](#), of which **6 credits** must be at the 300- or 400-level.
2. **One year** of college-level foreign language study or the equivalent. (8)

Contemporary Indigenous Multilingualism Certificate

Coordinator: Scott Saft, Ph.D.
Email: saft@hawaii.edu

Requirements (21-25 credits):

1. Required Courses (6)

- LING 102 Introduction to Linguistics (3)
- KIND 240 Culture Revitalization Movemnt (3)

2. Core Electives (6-8), taken from:

- LING 133 Elem Indig Lang (3)
- LING 233 Inter Indig Langs (3)
- KHAW 103 First Lvl Trans Hawn Immersion (4)
- KHAW 104 First Lvl Partial Hawn Immers (4)
- KHAW 133 First Lvl Hawn for Speakers (4)
- KHAW 233 Second Level Hawn for Speakers (4)
- transfer semester hours in an indigenous language other than Hawaiian (i.e. Lakota, Samoan) from a tribal college or other college

3. Related Electives (9-11), taken from:

- LING 442 Languages in Hawai'i (3)
- LING 347 Pidgins And Creoles (3)
- LING 331 Lang in Culture & Society (3)
- Courses in indigenous languages other than Hawaiian
- Courses pertaining to indigenous multilingualism with prior permission from the Hawaiian Studies department chair
- Hawaiian language courses; however, no more than a total of 8 credits may be applied to this certificate

Note: This certificate may be taken by linguistics majors or any other major.

College of Continuing Education and Community Service (CCECS)

Email: ccecs@hawaii.edu

Tel: (808) 932-7830

Fax: (808) 932-7831

Location: Portable Building 6 (PB-6), Room 103

Website: hilo.hawaii.edu/academics/ccecs/

CCECS Programs

- English Language Institute (ELI)
- Fitness for Life
- North Hawaii Education and Research Center (NHERC)
- SeniorNet
- Summer Session
- English Language Travel Study Program



How to Read Course Descriptions

Courses are described using the following format:

①CRS ②NUM③Title④(cr.)⑤(contact hrs) ⑥Full course description.
⑦Pre: pre-requisites. ⑧(Same as X-List) ⑨(Attributes: ATTR)

1. Course subject
2. Course number
3. Course title
4. Number of semester hours (credits)
5. Contact hours type(s) if non-lecture
6. Full description of the course.
7. (if applicable) Prerequisites, co-requisites, recommended preparation or other requirements
8. (if applicable) Cross-listed courses (equivalent courses offered through another subject heading)
9. (if applicable) [General Education](#) Attributes

Special notations used for credits are as follows:

- (1-3), for example = the number of semester hours, in this example, may be 1, 2, or 3, as determined by the instructor at the time of offering.
- (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).
- "99" courses are Research and Directed Studies Courses.

Accounting (ACC) Courses

[College of Business and Economics \(COBE\)](#)

ACC 201 Intro to Financial Accounting (3) An introduction to accounting principles and practices used to record and communicate financial information. Analyze methods for valuing assets, liabilities, and equity of an organization. Pre: Placement in MATH 125 or higher and Sophomore standing.

ACC 202 Intro to Managerial Accounting (3) An introduction to managerial accounting methods for evaluating performance including cost accounting, budgeting, break-even analysis, standard cost systems and reporting for internal decision making. Pre: ACC 201

ACC 350 Intermediate Acc I (3) The accounting process and the application of generally accepted accounting principles to assets and liabilities. Emphasis upon accounting theory. Pre: Admission to Professional Business Program, ACC 202 and junior standing.

ACC 351 Intermediate Acc II (3) The application of generally accepted accounting principles to accounting for owner's equity, long-term investments and debt, funds flow, and financial statement analysis. Pre: Admission to Professional Business Program, ACC 350, and junior

standing.

ACC 352 Individual & Business Taxation (3) Principles and practices involved in the determination of federal income taxation and tax planning as it applies to individuals and businesses including the concept of gross income, exclusions, deductions, credits, property transactions and sole proprietorships. Pre: Admission to Professional Business Program, ACC 202, and junior standing.

ACC 353 Cost Accounting (3) 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: Admission to Professional Business Program, ACC 202 and junior standing.

ACC 354 Business Software (3) Practical applications of general ledger/bookkeeping for small businesses. Focus will be on basic Accounting Information Systems concepts, internal controls, accounting tasks, and comparative product analysis. Pre: Admission to Professional Business Program, ACC 202, ACC 350 (may be taken concurrently), and junior standing.

ACC 355 Advanced Topics in Taxation (3) Advanced topics in taxation at the discretion of the instructor. Topics might include tax planning for individual and business owners, estate planning, gift taxes, or other current topics in taxation. Pre: Admission to Professional Business Program, ACC 352, and junior standing.

ACC 358 Governmental Accounting (3) Accounting principles as applied to nonprofit organizations, including government. Emphasis on budgetary control and fund accounting. Pre: Admission to Professional Business Program, and ACC 350.

ACC 400 Internship in Accounting (3) (other) Supervised on-the-job experience in an accounting position in business or government agency. Comprehensive report by student, meetings with faculty adviser, and performance appraisal from employer required. Pre: ACC 351; Minimum cumulative GPA of 3.00; compatibility with career interests; pre-approved job placement, internship contract and instructor's consent. (Same as BUS 400).

ACC 450 Advanced Accounting (3) The application of generally accepted accounting principles to specialized accounting entities: partnerships, branches, affiliated companies, estates and trusts; and to special topics including consolidations. Pre: Admission to Professional Business Program, ACC 351.

ACC 454 Auditing (3) Auditing concepts including standards, objectives, and ethics for external auditors. Emphasis on reporting standards, internal control, evidence, and statistical sampling. Pre: Admission to Professional Business Program, ACC 351.

ACC 455 IT Audit (3) Audits of accounting information systems, including enterprise systems. Generally accepted IT audit standards, frameworks, tools and methods. Includes the study and use of computer-assisted audit tools and techniques (CAATTS). Pre: Admission to Professional Business Program and ACC 454.

ACC 456 Advanced Auditing (3) This is a case-based auditing course that expands on topics introduced in Audit (ACC 454). The primary focus of this course is Fraud Examination and Forensic Accounting. Students will examine cases involving current and classic frauds as well as learning the requirements for collecting evidence for court. Pre: ACC 454



ACC x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ACC x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Administration of Justice (AJ) Courses

College of Arts and Sciences (CAS)

AJ 101 Intro to Admin of Justice (3) This course focuses on history, philosophy, and language of the criminal justice system. The role of law enforcement, prosecutor, public defender, courts, and corrections is examined. Social aspects of change and how it affects the criminal justice system also explored. Pre: Placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 103 Criminal Investigations I (3) This is an introductory course in criminal investigations. The nature of investigations, fingerprint classification, the role of the laboratory, and specific offense investigation will be explored. The class will also discuss interview and interrogation and search and seizure techniques. Pre: Placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 104 CSI: Violent Crime Forensics (3) Advanced course work in forensic science (Legal Scientific Investigation), with its contributions to both Crime Scene Investigations and Laboratory Analysis. Specific field and laboratory investigative techniques in violent crimes and other major felonies will be explored. Pre: AJ 103. Offered in conjunction with Hawai'i Community College.

AJ 150 The Correctional Process (3) This course examines the history of punishment and corrections. The class discusses laws, records, inmate classification, treatment programs, disciplinary procedures and supervisory techniques. Offered in conjunction with Hawai'i Community College.

AJ 170 Intro to Private Security (3) This course surveys the concepts and issues in the administration of security. Defines public versus private security roles for retail business, industry, and governmental agencies. Provides an overview of the functions of various security activities. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 180 Intro to Homeland Security (3) An examination of the history of terrorism, focusing on the terrorists, who they are, and how they operate. Responses to domestic and international terrorism will be discussed along with analyzing future trends. Pre: AJ 101. Offered in conjunction with Hawai'i Community College.

AJ 208 Criminology (3) This course explores crime and the body of knowledge regarding it as a social phenomenon. An emphasis is placed on the analysis of crime, crime causation, crime variables, impact on society, and societal reactions to crime. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 210 Juvenile Justice (3) This course focuses on principles and procedures of arrest, detention, petition, summons, records, and adjudication of the juvenile offender. It introduces the organization and

function of the police juvenile unit, community diversion practices and organization of the Family court. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 220 Constitutional Law (3) The U.S. Constitution is examined as a basis of arrest, search, seizure, interrogation, use of force and civil rights. U.S. Supreme Court cases and Hawai'i Court cases are examined to illustrate the court's interpretive process. Pre: AJ 101. Offered in conjunction with Hawai'i Community College.

AJ 221 Criminal Law (3) Studies history and philosophy of criminal law. Examines United States Constitution, especially the Bill of Rights. Considers nature of law, legal institutions, criminal court procedures, and offenses against persons and property. Includes case briefs. Pre: AJ 101. Offered in conjunction with Hawai'i Community College.

AJ 233 Police Organization & Mgmt (3) This course studies the principles of organization and administration of policing. Overviews of operations and activities of various divisions, bureaus, training and selection procedures, planning, and research are discussed. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 234 Police and Community Relations (3) This course acquaints the student with the role of police in government and the critical importance of effective community relations. The dynamics of race relations and other current social problems that directly relate to the law enforcement community are explored. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 250 Practice/Proced in Corrections (3) This course will provide students with the basic training skills necessary to enhance their opportunities to secure a job in the high demand field of corrections. The course will focus on such areas as the history and philosophy of corrections, the role of the correctional officer, legal aspects of corrections, communication and writing skills, as well as basic security procedures. Pre: AJ 101 and AJ 150. Offered in conjunction with Hawai'i Community College.

AJ 256 Domestic Violence & Child Abuse (3) This course focuses on domestic violence and child abuse. The cycle of violence, causes, effects and symptoms of child abuse will be explored. Legal, public policy, criminal justice, health and social services responses and interventions to family, child and intimate partner abuse will be examined. Pre: placement in ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 280 Current Issues (3) Examination of recent textual materials, government reports, and problems within the criminal justice system and how it affects change within American society and the world. Includes preparation of a formal research essay. Pre: AJ 101 and ENG 100. Offered in conjunction with Hawai'i Community College.

AJ 285 Narcotics & Organized Crime (3) The identification of narcotics and dangerous drugs, their manufacture and distribution, effects on society, applicable Federal and state laws. Vice and organized crime investigations, applicable laws, effects on individuals and society. Pre: ENG 100/100T, ESL 100/100T, or concurrent enrollment. Offered in conjunction with Hawai'i Community College.

AJ 290B AJ Practicum I (3-6) With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. Pre: AJ 101 and AJ 210 or AJ 256. Coreq: AJ 280 or prior completion. For ADJ Majors only. Offered in conjunction with Hawai'i Community College.



AJ 290C AJ Practicum II (3-6) With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. Pre: AJ 290B. Offered in conjunction with Hawai'i Community College.

AJ 290D AJ Practicum III (3-6) With the cooperation of public and nonprofit agencies in the community, advanced students are placed in responsible positions where they earn credits for work performed. Pre: AJ 290C. Offered in conjunction with Hawai'i Community College.

AJ 291 Basic Recruit Training (6-12) (other) A student majoring in Administration of Justice (ADJ) may receive up to 12 credits for completing Basic Recruit Training in law enforcement, as required by governmental agencies: Minimum of 250 hours training: 6 credits; Minimum of 500 hours training: 9 credits; Minimum of 900 hours training: 12 credits.

AJ 391 Internship (3-12) (other) Application of knowledge and skills in a public, private, or government agency/setting. Pre: Instructors consent, pre approved placement, statement of learning objectives, and completed internship contract.

AJ x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AJ x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Aeronautical Sciences (AERS) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

AERS 152 Introduction to UAS (3) Survey of unmanned aircraft systems (UAS) emphasizing the commercial history including sections on hobby and military applications. Students learn operational principles, laws, and theory.

AERS 352 UAS Mission Plans & Simulation (3) Students gain experience in planning and execution of UAS missions. Computer simulation is leveraged to provide real-time mission experience. Students will practice the roles of pilot in command, payload operator, and mission commander.

AERS 354 UAS Robotics (3) The core technologies of unmanned aircraft systems are examined. Students become familiar with UAS at the component level. Working in teams students will build a UAS, at the component level. Working in teams students will build a choose and retrofit a payload, and program the control software.

AERS 452 UAS Flight (3) This course will guide new pilots to safely operate rotor-wing and fixed-wing unmanned aircraft systems (UAS). This course includes essentials of risk mitigation and accident prevention, teamwork and Crew Resource Management (CRM), and focuses on data recovery. Pre: AERS 354

AERS 495 Professional Seminar (3) Careers in aeronautical science are not limited to pilots. Pilots should not limit their training to flying alone. This course offers the opportunity for interns to reflect on

knowledge gained in volunteer service. Wisdom is shared with other students. Pre: Senior Standing or Instructor's Consent.

AERS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AERS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Agribusiness (AGBU) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

AGBU 110 Microcomputing for Ag (3) (lecture/lab) Acquaints students with the microcomputer in agricultural applications by using and customizing 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, presentations and database software and access to the Internet.

AGBU 120 Ag Bus Field Study (1&€3) 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.

AGBU 291 Agribus Intern/Work Experience (3) (other) Internship with agribusiness firms in the areas of management, sales, food distribution. National Agri-Marketing Association activities may be used with advisor's approval. (Attributes: ALEX)

AGBU 320 Agribus Management (3) 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.

AGBU 340 Agri-Marketing Research (3) Primary marketing research including problem, definition, hypothesis formulation, research design, data collection, and results analysis. Mechanics of writing technical reports and oral presentations. Pre: AGECE 201 or ECON 130.

AGBU x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AGBU x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Agricultural Economics (AGEC) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)



AGEC 201 Agri Economics (3) Introduction to agriculture and resource economics and agri-business with application to Hawaiian agriculture (Micro-economics).

AGEC 221 Ag Acct/Recd Analysis (3) (lecture/lab) 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.

AGEC 322 Marketing Ag Products (3) Acquaints the student with the economic organization and operation of the food and fiber section 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.

AGEC 330 Farm Management (3) (lecture/lab) 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 Hawaiian farming systems. Stress on cost of production and cash flow budgets, capital investment, and linear programming. Computer applications.

AGEC 380 Environ Pol & Mgt Hawn Nat Res (3) Provides the student with an understanding of economic growth, resource scarcity and policy, environmental degradation, economic policy, property right and income distribution, institutional framework, benefit cost analysis and application of natural resource management in Hawai'i.

AGEC x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AGEC x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Agricultural Engineering (AGEN) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

AGEN 231 Intro To Ag Mech (3) (lecture/lab) Identification, proper use and maintenance of tools used in the shop and farm, plan reading, identification, selection and estimation of materials for agricultural projects. Principles of arc and oxy-acetylene welding, basic engineering concepts involved with layout and leveling, areas and heat flow, simple electrical wiring. Note: Suitable eye protection and shoes are required in all AGEN laboratory classes.

AGEN 301 Farm Power (3) (lecture/lab) 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. Alternate power options on farm. Pre: College Algebra. A valid driver's license is highly desirable. Note: Suitable eye protection and shoes are required in all AGEN laboratory classes.

AGEN 302 Farm Structures (3) (lecture/lab) Farmstead planning, materials, design, construction and maintenance, farm utilities, water-sewage systems and labor-saving conveniences. Pre: College Algebra and AGEN 231. Note: Suitable eye protection and shoes are required by all AGEN laboratory classes.

AGEN 400 Aquaculture Engineering (4) (other) Principles of site selection, design and construction of aquaculture systems. Pre: AQUA 262 and consent of protection and shoes are required in all AGEN courses. instructor. (Same as MARE 400). Note: Suitable eye protection and shoes are required in all AGEN courses.

AGEN 435 Irrig Prin & Pract (3) (lecture/lab) 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: types, selection and operation. Pre: College Algebra or consent of instructor. Note: Suitable eye protection and shoes are required in all AGEN laboratory classes.

AGEN x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AGEN x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Agriculture (AG) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

AG 100 Intro to Agricultural Sciences (3) Introduction to diverse disciplines of agricultural sciences, industry, and contemporary issues in agriculture.

AG 101 Mathematics for Agriculture (4) (lecture/lab) This course is designed to augment mathematics skills necessary to compete in today's business and agriculture environments. Typical applications are chemical rate conversions, solutions and mixtures, elementary algebra and financial topics. The aim is to teach students how to solve actual mathematical problems encountered in the day-to-day operation of agricultural/horticultural/ environmental operations.

AG 200 Agro-Environmental Science Com (3) This writing intensive and communications course will consist of short lectures to demonstrate types of scientific writing and speaking by comparison of types of writing, presentations by invited speakers to demonstrate different speaking styles, and library and online research to develop a coherent, well-written scientific review consisting of a short, five page paper to be handed in and presented in class using Power Point.

AG 205 Value Added Ag Products (3) (lecture/lab) Principles and practices of processing and developing agricultural based products.

AG 215 Agro-Environmental Chemistry (3) (lecture/lab) A study of chemical phenomena and the impact of chemistry on modern agriculture, the environment, and our daily lives. Includes basic discussions of agricultural chemicals; terrestrial, atmospheric, and aquatic pollution; pollutants transport; waste disposal and recycling;



global warming; ozone depletion; toxicology; energy sources; acids and bases; nuclear chemistry. Pre: college algebra or consent of instructor.

AG 230 Sustainable Agriculture (3) (other) Evaluation of conventional and alternative farming methods in the U.S., Polynesia, Southeast Asia, Africa and Latin America from a long-term perspective. Analysis of the effects of those practices on environmental quality, agrosystems, and food security. Consideration of conflicting values and resolution. (Attributes: ALEX, GCC)

AG 290 Stud Mgt Farm Enterp Prj (1&€“3) 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)

AG 291 Directed Work Experience Pgm (3) (other) 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 CAFNRM students and offered only on a CR/NC basis. Credits earned not included in maximum allowed.

AG 304 Applied Microbiology (3) An overview of the production aspects of microbiology, including fermentation biology, mushroom cultivation, and biotechnology. Pre: BIOL 171 or instructor consent.

AG 312 Ag Geog/World Food Prob (3) 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 GEOG 312).

AG 330 Peoples, Plants, and Culture (4) (lecture/lab) Ethnobotany, the study of the relationships between humans and plants, and archaeobotany, the study of past plant use, is considered from an anthropological perspective. The focus is on how plants fundamentally shape the human condition, how plants are integral to the structure of culture and society, and the important roles plants play in shaping and directing cultural change. (Same as ANTH 330, ENSC 330)

AG 375 Intro To Genetic Analysis (3) An introduction to the principles and methods of genetic studies. The principles are first covered, especially with regard to crop improvement. This is followed by an overview of the structure and function of DNA and RNA, and an introduction to the tools and applications of molecular biology. Pre: BIOL 171

AG 403 Agricultural Biotechnology (3) This course is an overview of modern agricultural biotechnology with an emphasis on contemporary case studies. It is geared toward students, teachers, and extension personnel with an interest in this field. Thus, it will include instructional methods and alignment to state DOE standards. A firm grasp of biology and some understanding of genetics is assumed. Pre: BIOL 171 or instructor consent.

AG 405 Plant Biotechnology (3) This course will provide basic information about plant biotechnology, with examples of its uses. Topics will include overviews of plant gene and genome analysis, transgenic technology, and bioinformatics, with an emphasis on crop improvement. Pre: at least one Biology course.

AG 496 Senior Seminar in Agriculture (1) Guided research into current problems. Topics may vary according to interest of students and instructor. CR/NC only.

AG x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AG x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Agronomy (AGRN) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

AGRN 310 Agronom Crop Prod Tropics (3) (lecture/lab) Current agricultural practices in production of food, feed, and fiber crops in the tropics. Pre: HORT 262 or instructor's consent.

AGRN 410 Soil-Plant Herbivore Interrltn (3) 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 171 or HORT 262, or instructor's consent.

AGRN x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AGRN x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Animal Science (ANSC) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

ANSC 141 Intro To An Science (3) Introductory material related to animal science and livestock production including topics such as terms, body parts, wholesale cuts, breeds, digestion, feeding, reproduction, industry, and livestock breeding.

ANSC 165 Animal Health (3) The fundamentals of animal health will be taught from the veterinary medical perspective. Topics addressed will include causes of disease, basic immunology, disease prevention, principles of drug therapy and examples of animal disease processes.

ANSC 175 Animal Behavior (3) Introduction to the basic principles and processes regarding domestic animal behavior including communication, social structure, sexual behavior, learning and common behavioral disorders.

ANSC 185 Intro to Companion Animals (3) Introductions of common breeds of the dog and cat, proper physical examination, proper care and nutrition.



ANSC 223 Intro to Wildlife Science (3) (lecture/lab) Principles of managing wildlife populations and the interrelationships between wildlife and domestic livestock.

ANSC 254 Fundamentals of Nutrition (3) Comparative animal digestive systems and metabolism. Essential nutrients, their functions, mechanisms of action and interrelationships. (Same as BIOL 254). (Attributes: GCC)

ANSC 321 Applied Animal Nutrition (3) (lecture/lab) 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 254.

ANSC 342 Beef Cattle Production (3) (lecture/lab) Principles of efficient beef production including comparative breed evaluation, performance testing and selection, breeding, feeding management, health care, and marketing. Pre: ANSC 141 or instructor's consent.

ANSC 350 Anatomy/Physiol Of Farm Animal (3) (lecture/lab) Structure and function of the animal body. A general study of anatomy, but emphasis placed on understanding the physiology. (Same as BIOL 323)

ANSC 351 Swine Production (3) (lecture/lab) Principles of efficient pork production including breeds, crossbreeding, feeding, herd health, housing, management, selection and waste management. Pre: ANSC 141 or instructor's consent.

ANSC 353 Horse Production (3) (lecture/lab) Origin of species, breeds, feeding, lameness evaluation, reproductive considerations, and health issues of light horses. Limited enrollment. Pre: ANSC 141 or instructor's consent.

ANSC 355 Goat & Sheep Production (3) (lecture/lab) Principles of efficient goat and sheep production, including breeds, crossbreeding, feeding, fiber, herd health, management, reproduction and selection. Pre: ANSC 141 or instructor's consent.

ANSC 445 An Breeding/Genetics (3) (lecture/lab) Principles of Mendelian, population and quantitative genetics. Applications to improvement of livestock through selection methods and mating systems. Pre: ANSC 141. Recommended: MATH 121 or equivalent.

ANSC 450 Physiology Reproduction (3) (lecture/lab) Livestock reproductive anatomy and physiology. Pre: ANSC 141. Recommended: ANSC 350 (Same as BIOL 450)

ANSC 453 Anim Disease & Parasites (3) (lecture/lab) Principles and practices used for the prevention, diagnosis, and treatment of diseases and parasites in livestock. ANSC 453 and 454 do not have to be taken in sequential order. Pre: ANSC 141 or instructor's consent.

ANSC 454 Animal Diseases & Parasites II (3) (lecture/lab) Principles and practices used for the prevention, diagnosis, and treatment of diseases and parasites in livestock. ANSC 453 and 454 do not have to be taken in sequential order. Pre: ANSC 141 or consent of instructor.

ANSC 490 Animal Science Internship (3) (other) Practical animal experience (employed or voluntary) at farms, ranches, veterinary clinics, zoos and other animal operations. Pre: ANSC 141 and two of the following: ANSC 342, 351, 353 and 355 and permission of the instructor. (Attributes: ALEX, GCC)

ANSC x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ANSC x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Anthropology (ANTH) Courses

College of Arts and Sciences (CAS)

ANTH 112 Box Office Archaeology (3) This course is an introductory level film-based consideration of archaeology and archaeologists. Various films, ranging from the 1930s to the present, are viewed, discussed and critiqued. The foci of inquiry are on how archaeology is portrayed in visual media through time, and how media have affected archaeology, the human past and popular culture. The romanticized image of archaeology will be compared with scientific realities, specifically the nature of archaeological data, theory, field methods and analytical techniques.

ANTH 150 Humankind Emerging (3) Our 4-field approach toward integrating various aspects of the human condition includes 1) biological, 2) cultural, 3) linguistics, and 4) archaeological. We view the world using this dynamic introduction to anthropological methods, theories, ethics, and by analyzing past populations, our close primate relatives, language and communication, sexuality, spirits and the supernatural, and contemporary issues. We make this course relevant to you by examining gender and cultural diversity, the meaning of family, food sustainability, and globalization.

ANTH 200 Cult Of World: Regional Survey (3) 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) (Attributes: GAHP)

ANTH 205 Cultural Anthropology (3) The course will provide you with a multicultural perspective on the world, and deepen your understanding from a global perspective by highlighting cultural and gender diversity, kinship patterns, and economic and political systems.

ANTH 210 Archaeology (3) Prehistoric archaeology; methods and techniques of excavation and analysis; brief survey of human's cultural growth in prehistoric times.

ANTH 215 Human Evolution (3) The evolution of humans and their position among the primates. Human adaptation to the environment both in the past and present. Human variation and biomedical anthropology and explored.

ANTH 221 Intro to Language (3) 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 221)

ANTH 295 Pacific: Brown Bag Seminar Ser (1) (other) Weekly one hour seminars will cover a broad range of topics, current research and topical issues that are of relevance to contemporary ways of life in the



Pacific. Seminars will also explore the application of Pacific Studies to the workforce. Credit is gained by weekly attendance and the submission of short summaries of the weekly seminars. (Same as GEOG 295).

ANTH 300 Cultures of Oceania (3) This course studies the societies of Polynesia, Micronesia and Melanesia. It introduces students to the culture and people of these Pacific regions, the impact of contact with the West and the struggle to balance tradition and modernity in contemporary times. (ANTH 357, Change in the Pacific, concentrates more on contemporary social and political issues). (Attributes: GAHP)

ANTH 310 Contemp Iss in Hawaiian Anth (3) An examination of the social and political context in which Hawaiian archaeology is practiced. Topics include indigenous anthropology, descendant communities, critical theory, and the politics of the past. (Attributes: GAHP)

ANTH 315 Ecological Anthropology (3) Relationship of humans to their natural environment, particularly emphasizing the role of culture as a dynamic component in ecological systems. Pre: ANTH 150 or 215, or instructor's consent.

ANTH 320 Cross-Cultural Study Of Women (3) Comparative analysis of women's roles and women's lives in different societies. Topics include women's status, life stages, gender roles, images of women and power. (Same as WS 320)

ANTH 321 Morphology And Syntax (3) 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 102 or consent of instructor. Recommended: LING 311. (Same as ENG 321, LING 321)

ANTH 323 Cultural & Social Change (3) Various approaches to cultural and social change in non-literate and modern societies; evolution, diffusion, acculturation, adaptation, revolution.

ANTH 324 Culture, Sex And Gender (3) A cross-cultural examination of the development of gender systems and gender roles. Consideration of sex roles and activities as part of the larger gender system. Pre: ANTH 150 or 205 or instructor's consent. (Same as WS 324)

ANTH 330 Peoples, Plants, and Culture (4) (lecture/lab) Ethnobotany, the study of the relationships between humans and plants, and archaeobotany, the study of past plant use, is considered from an anthropological perspective. The focus is on how plants fundamentally shape the human condition, how plants are integral to the structure of culture and society, and the important roles plants play in shaping and directing cultural change. (Same as AG 330, ENSC 330)

ANTH 331 Lang in Culture & Society (3) An examination of the articulation of language in social and cultural context, including topics relevant to sociolinguistics and ethnolinguistics. Pre: ANTH/LING 221 or LING 102 or consent of instructor. (Same as LING 331)

ANTH 347 Pidgins And Creoles (3) 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 developments of a Creole and language acquisition. Recommended: LING 102 or 121. (Same as ENG 347, LING 347) (Attributes: GAHP)

ANTH 354 Filipino Culture (3) Introduction to peoples and cultures of the Philippines. Topics include cultural origins, linguistics and cultural diversity, values, social structure, and overseas Filipino adaptations. (Attributes: GAHP)

ANTH 356 Japan (3) Culture origins and development with emphasis on

contemporary Japanese culture. (Same as JPST 356) (Attributes: GAHP)

ANTH 357 Change in The Pacific (3) Peoples of the Pacific Islands with emphasis on contemporary cultures and social and political problems. Pre: consent of instructor. (Attributes: GAHP)

ANTH 358 Japanese Immigrants (3) 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) (Attributes: GAHP)

ANTH 359 Cross-Cultural Cosmology (3) The anthropological approach to the study of religion asks the questions: What is religion cross-culturally and for particular societies? What behaviors and attitudes characterize religion in different culture areas? How can particular religions be related to societies that espouse them? Topics include indigenous and adopted religions of Hawaii, Japan and China.

ANTH 370 Hist of Anth Theory (3) Theory and method in anthropology; emphasis on cultural/social anthropology. Pre: ANTH 150 and junior or senior standing, or consent of instructor.

ANTH 372 Culture through Film (3) Critical examination of ethnographic films (documentaries that describe a culture). Film construction and film-maker's intentions. Development of approaches to ethnographic film-making. Cultural representation in film. Relationship of film to written ethnography. Pre: ANTH 150 or ANTH 205.

ANTH 375 Human Biological Variation (3) Human genetic and physical variation; latitudinal, longitudinal and altitudinal variation across human variation. Pre: ANTH 250 or ANTH 215 or consent of instructor.

ANTH 380 Origins of Agriculture (3) This course is a seminar that reviews the history of thought and debate concerning the development of prehistoric agriculture and the processes of plant cultivation and domestication. Emphasized are recent interdisciplinary developments in ethnobotany and archaeobotany that allow detailed, complex scientific evidence to be considered.

ANTH 384 Primatology (3) 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 215, or BIOL 172. (Same as BIOL 384, ENSC 384)

ANTH 385 Hawn & Pacific Prehistory (3) Archaeological overview of the cultures of the Pacific before European contact with an emphasis on Polynesia and Hawai'i. (Attributes: GAHP, HPP)

ANTH 386 Hawaiian Culture Before 1819 (3) 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 150 or ANTH 205 HWST 111 or instructor's consent. (Attributes: GAHP)

ANTH 387 Modern Hawn Cult 1819-Present (3) 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 150 or ANTH 205 or HWST 111 or instructor's consent. (Attributes: GAHP)

ANTH 388 Historical Archaeology (3) Historical archaeology as an integral aspect of anthropological inquiry into culture-contact and culture



change. Topics include research designs, field methods, laboratory methods, and generating "anthropological histories". North American historical archaeology is reviewed with an emphasis on the potential applications of historical archaeology in Oceania. Pre: ANTH 210.

ANTH 389 Cultural Resource Management (3) Covering issues pertaining to the identification, evaluation, and conservation of cultural resources, with an emphasis on archaeological sites. Central topics include the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, Hawai'i State legislation regarding cultural resources, and the implementation of these laws in Hawai'i by government and private organizations. (Attributes: GCC, HPP)

ANTH 415 Medical Anth (3) Approaches to health, disease and medicine in both Western and non-Western cultures including ecological, evolutionary and anthropological perspectives. Pre: 9 credits in either anthropology or biology.

ANTH 435 Senior Seminar Pacific Studies (3) (other) A reading and research seminar under the supervision of faculty from Anthropology, Geography, and/or History on indigenous issues in contemporary Oceania. Topics include indigeneity, sovereignty, climate change and sea-level rise, militarism, and ethnic tensions and violence. Pre: Junior or Senior standing. (Same as GEOG 435, HIST 415) (Attributes: GAHP)

ANTH 445 Ethnographic Field Tech (3) Techniques of anthropological field research; ethnographic literature and work with informants. Pre: ANTH 150 or ANTH 205 or consent of instructor. May be repeated for credit if topics are different, up to a maximum of six (6) credit hours.

ANTH 447 Marine Anth:Fishers in Oceania (3) (lecture/other) The anthropological study of fishing communities with a focus on Oceania; fishing practices and technology; common property resources; fisheries management options; recent problems in world fisheries including consequences for the human participants in a fishery. Students will also learn qualitative research techniques and participate in a local fieldwork exercise.

ANTH 450 Physical Anth Lab (4) 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 215 and consent of instructor.

ANTH 463 Global Health in Evol Perspect (3) Overview of global health issues from the perspective of evolutionary medicine. Topics include the co-evolution of humans and their pathogens; modernization and the health transition to chronic diseases. Pre: ANTH 150, ANTH 215, or consent of instructor.

ANTH 470 Museology (3) Museum training, including museum activities, exhibits, administration, custodial problems and interpretation. At least one field trip to Lyman House Museum. Pre: ANTH 150 or ANTH 210, or consent of instructor.

ANTH 481 Archaeometry (3) Covering a broad range of analytical techniques in archaeological research, emphasizing the relationships of archaeology to the natural sciences. Mini-sections of the course involve hands-on laboratory experience, covering geoarchaeology, zooarchaeology, archaeobotany, identification of raw materials and resources, and dating techniques.

ANTH 482 Archaeological Research Meth (4-6) Archaeological methods including research design and field methods such as survey, mapping and excavation, and laboratory methods. Normally taught as a summer session course. Credit varies depending on length of field

projects (4-6 weeks, 8/hrs./day). Pre: ANTH 210 or permission of instructor. May be repeated for credit up to maximum of 12 credit hours.

ANTH 484 Stone Tool Analysis (3) (other) Analytical techniques related to stone artifacts (lithics) from archaeological sites, with an emphasis on lithic technology, or understanding the processes by which stone tools were manufactured, used, and eventually discarded. Identification of lithic "debitage" geochemical characterization, use-wear, and applications to Hawaiian flaked, pecked, and ground tools.

ANTH 485 Applied Anthropology (3) 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 150 and junior or senior standing, or consent of the instructor. (Attributes: ALEX, GCC)

ANTH 490 Internship in Archaeology (3-6) Placement and experience in public, private, and/or government agencies involved in archaeological research plus completion of related research projects. Pre: ANTH 210 and instructor and department approval. May be repeated for credit if topics are different, up to a maximum of 12 credits. (Attributes: ALEX)

ANTH 492 Dynamic World of Anthropology (3) This course is a culminating experience of your anthropology education. You will strengthen your competence in the four subdisciplines of anthropology and hone your skills for future professional activities and personal development. Career opportunities related to various subfields, including cultural resource management, health care and forensics, are identified, in addition to opportunities in non-profits. Pre: Senior Standing or Instructor's Consent

ANTH 495 Proseminar (3) (other) 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)

ANTH x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ANTH x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [ANTH graduate-level courses](#).

Aquaculture (AQUA) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

AQUA 262 Intro Aquaculture (3) 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. (Attributes: ALEX, GCC, HPP)



AQUA 352 Aquaculture of Fishes (3) Theory and practice of aquaculture techniques for a wide variety of fishes including identification, reproduction, hatchery and nursery operations, grow-out, health management, harvest, processing and marketing. Pre: AQUA 262 or aquatic ecology or consent of instructor.

AQUA 352L Aquaculture of Fishes Lab (1) (lab) Hands-on experience in hatchery, nursery and grow-out of wide variety of fishes. Pre: AQUA 352 or concurrent enrollment.

AQUA 353 Invertebrate & Algae Culture (3) Theory and practice of aquaculture techniques for invertebrates and plants including identification, reproduction, hatchery and nursery operations, grow-out, health management, harvest, processing and marketing. Pre: AQUA 262 or aquatic ecology or consent of instructor.

AQUA 353L Cultures of Invertebrates Lab (1) (lab) Hands-on experience in hatchery, nursery and grow-out of aquatic invertebrates and algae. Pre: AQUA 353 or concurrent enrollment.

AQUA 425 Water Qual & Aquatic Product (3) Study of water quality and aquatic productivity as it relates to aquaculture and fisheries. Pre: CHEM 161 or instructor's consent. (Same as BIOL 425).

AQUA 425L Water Qual & Aquatic Prod Lab (1) (lab) Hands-on education in the monitoring and management of water quality and algal populations in ponds and other aquatic systems. Pre: AQUA 425 or concurrent enrollment, or instructor's consent.

AQUA 466 Fisheries Science (3) General characteristics of fisheries, harvesting methods; principles and techniques to derive data and analyze fished population. Pre: background in fish biology and aquatic ecology or consent of instructor.

AQUA x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

AQUA x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Art (ART) Courses

College of Arts and Sciences (CAS)

ART 100 Intro Studio Seminar (3) An introductory studio exploration in a variety of media including mixed media. Presentations, critiques, and assigned readings for the purpose of comparative study and discussion.

ART 101 Intro To Visual Arts (3) Slide/lecture course and introduction to the visual arts in their various forms and expressions.

ART 109 Intro To Drawing & Painting (3) (other) Studio experiences for non-majors. Emphasis on formal concepts in drawing and painting. The course incorporates various drawing and painting media into exercises, projects, and lectures to develop personal expression.

ART 112 Introduction to Digital Media (3) A foundation level introduction to methods of two dimensional digital image making and manipulation using industry standard software. Emphasis will be placed

on technical and compositional skill development in a fine arts context.

ART 121 FP Studio: Beg Drawing (3) (other) 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.

ART 122 FP Studio: Beginning Painting (3) (other) Foundation Program Studio. Introduction to painting; exploration of color theory and its applications; and investigation of perceptual relationships of light, color, and space. Studio exploration of the principles of visual organization through applications of color concepts and fundamental materials and techniques of painting. Pre: ART 121.

ART 123 FP Studio: 2-D Design (3) (other) 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.

ART 124 FP Studio: 3-D Design (3) 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.

ART 175 Survey of World Art I (3) A survey of world art from prehistoric times in Europe, Asia, Africa, Pacific Islands and the Americas up to approximately 1500 C.E. A study of the inter-related influences and exchanges in art creation and visual communication between various world cultures.

ART 176 Survey of World Art II (3) A survey of world art from approximately 1500 C.E. to the present time. A study of the inter-related influences and exchanges in art creation and visual communication between various world cultures.

ART 207 Photography Studio I (3) Basic techniques of photography; camera as tool for communication and self-expression. Assumes no previous knowledge of photography. Student must have camera with adjustable shutter speed and aperture settings, light meter. Pre: Art 123 or consent of instructor.

ART 215 Printmaking: Intaglio (3) (other) Basic intaglio techniques of etching, engraving, drypoint, and aqua-tint; perceptual and conceptual exercises in composition and pictorial structure. Pre: ART 121, 123.

ART 216 Printmaking: Lithography (3) Basic lithographic techniques; development of concepts. Pre: ART 215.

ART 221 Intermediate Drawing (3) (other) Life drawing and study of the human figure; studio drawing concepts and application of drawing materials. Explorations of anatomy, gesture, contour, form, light, and space in relation to figure studies. Pre: ART 121. Repeatable for a total of 9 semester hours.

ART 222 Intermediate Painting (3) (other) Intermediate painting studio. Development and explorations of painting materials and concepts and the visual relationships of subject matter, content, and composition. Pre: ART 121, 122.

ART 235 Introduction to Papermaking (3) A studio course focusing on the techniques involved with creating handmade paper. Students will learn, practice, and apply the fundamentals of the papermaking process,



which will include pulp preparation, basic sheet formation, sizing, pressing, and drying. Studies will concentrate on Western applications. This course is not repeatable.

ART 280 Aspects Of Asian Art (3) Please contact the department or division office for more information about this course. (Attributes: GAHP, HPP)

ART 300 Intermed Studio Seminar (3) 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. May be retaken for a total of 9 credits.

ART 301 Digital Video and Installation (3) This course explores ways of implementing video as a medium for creating engaging interactive physical sculpture and environments. Focus is on taking video off the screen and into three-dimensional space in the form of video sculpture and site-specific art installations. Projects may include: projected video and audio displays, performance actions and using the internet as a method of creative distribution. May be repeated one time for credit.

ART 308 Creative Digital Photography (3) This course is designed to develop and expand ideas about photographic representation by expanding students' range of interests and uses of the medium. Both digital imaging techniques and silver-based materials are explored with an eye toward expansion and experimentation. Projects include invented persona writing, pinhole pictures, the body and expressive gesture, cross-media appropriation, and an independent project. May be repeated for up to 9 credits. Pre: ART 123.

ART 315 Adv Printmkg: Intaglio (3) Advanced intaglio techniques involving more complex development of individual projects. Pre: ART 215. Repeatable for a total of 9 semester hours.

ART 316 Adv Printmaking Seminar (3) (lecture/other) Advanced Studio practice in independent projects. Pre: ART 216 or 315. Repeatable for a total of 9 semester hours.

ART 317 Cyanotype (3) Studio study of the cyanotype, an early 19th century light- sensitive photo process used to create fine art prints. Studio work will include similarly related processes, such as chrysotype, gum dichromate and kallotype. Pre: Foundation program studios (Art 121, 122, 123, 124) and completion of 2 semesters of 200-level art studios. Repeatable for a total of 9 semester hours.

ART 320 Art of Ancient Civilizations (3) Exploration of the arts of ancient world civilizations with an emphasis on Egypt, Mesopotamia, Indus Valley, Bronze Age China, Ancient Greece, Rome and Persia. Also includes comparisons with Mayan, Aztec and ancient cultures of Africa. Pre: junior or senior standing or instructor's consent.

ART 321 Advanced Drawing (3) (other) Studio practice of advanced and individual problems in drawing. Pre: ART 221. Repeatable for a total of 9 semester hours.

ART 322 Advanced Painting (3) (other) Studio practice of advanced and individual problems in painting. Pre: ART 221, 222. Repeatable for a total of 9 semester hours.

ART 335 Papermaking (3) This studio course will focus on the techniques involved with creating handmade paper. Students will learn, practice, and apply the fundamentals of the papermaking process, which will include pulp preparation; basic sheet information; watermarking;

laminating; embedding; coloring; sizing; and pressing and drying. Studies will concentrate on Eastern and Western applications, as well as traditional and contemporary approaches. Individuals creativity and experimentation with handmade paper as an artmaking medium will be encouraged. Pre: Art 121,122,123,124 and completion of two semesters of 200-level art studio courses. Repeatable for a total of 9 semester hours.

ART 360 Renaissance and Baroque Art (3) The historical development of European art, beginning with the transition from the late Middle Ages, and concluding with the transition into the Neoclassical period; features the motivating religious, philosophical and aesthetic values. Pre: junior or senior standing, or instructor's consent.

ART 370 Modern Art Seminar (3) The study of visual arts theory based upon the movements in mainstream art from the late 19th through the 20th century in Europe and America. Pre: ART 270 or ART 176 or consent of instructor.

ART 374 Art of the 19th Century (3) An in-depth study of the art of the nineteenth century in Europe from NeoClassicism to PostImpressionism. The focus of the course will be on France and Western Europe, but some time will be spent comparing the art of other countries and discussing their influences on Western European art. Geographic, philosophical, religious and political influences on the arts of the times will be explored.

ART 375 Christianity & 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. Pre: junior or senior standing, or instructor's consent.

ART 380 Art Of China (3) Chinese art from the Neolithic period to the Qing Dynasty, with emphasis on the Song and later periods. Pre: Only one of the following is required: ART 175 and ART 176 or junior/ senior standing or instructor's consent. (Attributes: GAHP, HPP)

ART 381 Art Of Japan (3) The history of art in Japan with emphasis on Buddhist art, the relationships between Chinese and Japanese arts. Pre: ART 175 or ART 176 or JPST course or instructor's consent. (Same as JPST 381) (Attributes: GAHP, HPP)

ART 385 Religious Arts Of East Asia (3) Interrelationships of the arts and religion in various Asian cultures, with emphasis on Buddhism, Hinduism, Confucianism, Daoism, and Shinto. Pre: junior or senior standing, or instructor's consent. (Attributes: GAHP)

ART 390 Seminar Contemporary Art (3) (other) 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 instructor's consent.

ART 392 History of Art and Technology (3) An analytical study of the history of the international art and technology movement from the early 1950's to today. The content of the course includes avant-garde experimen- tation with technology leading to digital exploration in the arts, the cross-over between art and science in the late 20th century, and changes in the conceptual development of the 21st century. Pre: ART 270 or 176.

ART 401 Applied Digital Visualization (3) This team-taught course provides an interdisciplinary framework for learning cutting-edge data visualization techniques. The class enables students from varied disciplines to work together and develop collaborative projects. Students



are taught hands-on skills for creating effective data visualization products and tools that can be applied to a broad range of scientific disciplines. (Pre: ART 112)

ART x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ART x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Astronomy (ASTR) Courses

College of Arts and Sciences (CAS)

ASTR 110 General Astronomy (3) 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.

ASTR 110L Gen Astronomy Lab (1) (lab) Demonstration of astronomical principles through laboratory observations and analysis of astronomical data. Not required for ASTR 110. Pre: ASTR 110, ASTR 150, ASTR 180, ASTR 181 may be taken concurrently.

ASTR 111 Intro to Space Exploration (3) Survey of applied science, social, cultural and engineering topics in space science, focusing on exploration. Past, present and future aspects of space exploration. Relationship to Hawaiian views of cosmology and Hawaiian traditions such as Wayfaring and relationship to the land. (Same as PHYS 111)

ASTR 130 Intro To Space Science (3) 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.

ASTR 150 Life in The Universe (3) The possibility that life might exist elsewhere in the universe has fascinated human beings ever since our ancestors first gazed into the starry sky. In this course, the question for extraterrestrial life is considered from astronomical, biological, and sociological perspectives. Topics include planets, stars and galaxies, the Big Bang, the origin and evolution of life on Earth, searches for extraterrestrial life, and more. A non-mathematical course for non-science majors who want to explore astronomy.

ASTR 180 Princ Of Astron I (3) 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. Pre: Either Math 103, MATH 125, MATH 135, MATH 140, MATH 140X or equivalent, or concurrently enrolled in MATH 205 or higher.

ASTR 181 Princ Of Astron II (3) 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 181. Pre: ASTR 180.

ASTR 224 Spaceflight (3) All aspects of manned and unmanned spaceflight, with emphasis on actual technologies and procedures used in space exploration. For students interested in Astronomy, Physics, Planetary Sciences, Aerospace Engineering or with a general interest in spaceflight. Pre: any one of the following PHYS 151 or higher; CHEM 151 or higher; MATH 140X or higher. Students lacking these pre-requisites who believe they have sufficient science background may be admitted with the instructor's permission. (Same as PHYS 224)

ASTR 230 Applied Electronics I (4) (lecture/lab) Theory and applications of circuit design and analysis with an emphasis on analog devices. AC and DC series and parallel RLC circuits, diodes, transistors and operational amplifiers. Laboratory will consist of construction and analysis of representative circuits. Pre: PHYS 173 or PHYS 272, and PHYS 272L. (Same as PHYS 230).

ASTR 250 Observational Astronomy (3) 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 205 and PHYS 272.

ASTR 250L Observational Astronomy Lab (2) (lab) A lab course in observational astronomy where students use and characterize astronomical instruments (telescopes, detectors, spectrographs). Astronomical observations such as imaging or spectroscopic data will be acquired, processed, and analyzed. Applications to stellar and astrophysics will be examined. Pre: ASTR 181 or equivalent, and ASTR 250 (which can be taken concurrently).

ASTR 260 Computational Physics & Astron (3) Computational techniques in physics and astronomy, with an emphasis on fundamental algorithms and development of code in high-level languages. Topics include least squares, interpolation, random number generators and numerical integration of differential equations. Pre: PHYS 272 or PHYS 173, CS 150. (Same as PHYS 260)

ASTR 260L Computational Phys & Astr Lab (1) (lab) Will offer an introduction to unix command language and programming skills relevant to Astronomy. Emphasis on writing algorithms and code programming in Python, C ++, or Fortran. Some elements of IDL and IRAF are covered. Problems will come from physics and astrophysics that will be solved using numerical methods and mathematical algorithms presents in the PHYS 260 lecture. Topics covered are integration methods, interpolation, error estimation, eigenvalues and eigenvectors, linear and non-linear equations, Fourier methods, random numbers and Monte Carlo methods. Pre: PHYS 272 or PHYS 173, PHYS 260 (may be taken concurrently). (Same as PHYS 260L)

ASTR 275 Akamai Internship (3) Uses data collection and analysis techniques to articulate foundational principles behind Hawaii observatory operations and remote-sensing based technologies. Create and communicate engineering solutions to Hawaii observatory and tech



industry use cases. Includes laboratory exercises and inquiries to build teamwork, presentation skills and practical experiences of the technical workplace. Utilizes technologies and analysis techniques relevant to the Hawaii high-tech industry. Summers only. Pre: Instructor Consent, Repeatable up to 9 credits. (Attributes: ALEX)

ASTR 350 Stellar Astrophysics (3) An introduction to the physical concepts dictating the formation, structure, and evolution of stars, and the interstellar medium. Astrophysical concepts and observational data are combined to provide a unified treatment of stellar astrophysics. Concepts of Jeans instabilities, hydrostatic equilibrium, radiative transfer in stars, stellar atmospheres, stellar nucleosynthesis, and stellar remnants are covered. Pre: ASTR 181, PHYS 274, PHYS/ASTR 260, and PHYS 341 (which can be taken concurrently).

ASTR 350L Stellar Astrophysics Lab (2) (lab) A laboratory course in experimental astrophysics where students obtain data of stars, star clusters, and star-forming regions with small, portable telescopes and UH Hilo telescope on Maunakea. Data acquisition takes place throughout the semester whereby students learn how to troubleshoot equipment and develop technical skills. Weekly laboratory projects use data obtained with telescopes, cameras, and spectrographs and solidify theoretical concepts presented in ASTR 350 Stellar Astrophysics. Pre: ASTR 250, ASTR 250L, and ASTR 350 which can be taken concurrently.

ASTR 351 Galactic & Extragal Astrophys (3) A course in extragalactic astronomy and cosmology, covering topics on the structure and formation of the Milky Way, normal galaxies, active galactic nuclei, clusters, interstellar and intergalactic media, large scale structure, cosmological models, and spacetime metrics. Pre: ASTR 181, ASTR 350, PHYS 274, PHYS/ASTR 260.

ASTR 351L Galactic & Extragal Astr Lab (2) (lab) A laboratory course in experimental astrophysics where students obtain data of galactic components, nearby and distant galaxies, galaxies of different morphological types, and extragalactic star-forming regions active galactic nuclei, lensed galaxies, and cluster of galaxies using the 0.7m UH Hilo telescope and the 2.2m telescope. Data acquisition takes place throughout the semester whereby students further improve their observational techniques and sources. Weekly laboratory projects use data obtained with a wide range of telescopes, cameras, and spectrographs and technical skills learning how to acquire faint and extended solidify theoretical concepts presented in ASTR 351 Galactic & Extragal Astrophysics. Pre: ASTR 350L; and ASTR 351 which can be taken concurrently.

ASTR 352 Planets and Exoplanets (3) Planets and Exoplanets (3) 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 and applications to exoplanet research. Study of the atmospheres of Solar System planets and satellites, and also the formation and evolution of the Solar System and extrasolar planetary systems. Pre: GEOL 111 Understanding the Earth (3), ASTR 180 Princ Of Astron I (3), PHYS 151 College Physics I (3) or PHYS 170 Gen Phys I: Mechanics (4). (Same as GEOL 352 Comparative Planetology (3)).

ASTR 375 Literature Review Practicum (1) (other) A guided course for writing a literature survey on a topic in physics or astronomy. This course can be repeated if a different writing topic is approved. Credits earned in this course may NOT be counted as upper-division physics or astronomy electives needed for the BA in Physics or the BS in Astronomy degrees. Pre: 9 credit hours in Physics or Astronomy courses at the 200 level or above AND permission of the instructor.

ASTR 381 Cosmos and Culture (3) (lecture/other) Selected topics on the historical, intellectual, social, and cultural context of astronomical discovery. Interdisciplinary skills and knowledge for understanding the place of Astronomy in a multi-cultural society.

ASTR 385 Software Systems for Astronomy (3) The course provides basic instruction in the design and implementation of software for telescope control systems, instrument control systems (cameras and spectrographs); as well as the web-based tools used to plan observations. The course also covers the analysis and archiving of astronomical data. Students learn about existing software tools and packages, develop their own software tools, and analyze datasets from today's leading observatories. The course is open to both astronomy students with a strong interest in computer science, and to computer science students with a strong interest in astronomy. Pre: ASTR 110 or ASTR 180; CS 150 or instructor approval.

ASTR 400 Observatory Internship (1-6) Cooperative education experience with student employed in an astronomical observatory or research facility on the Island of Hawaii. 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 astronomy electives for the purpose of fulfilling that requirement for the B.S. degree in Astronomy). Pre: consent of Department. (Attributes: ALEX)

ASTR 432 Senior Lab/Thesis Project (3) (lab) 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. May be repeated once for a maximum of 6 credits. Pre: permission of the department is required. (Same as PHYS 432)

ASTR 450 Instruments & Techniques (3) 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.

ASTR 460 Gravitation & Cosmology (3) 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 274, MATH 232.

ASTR 495A Seminar (1) (other) 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 instructor's consent. (Same as CHEM 495A-495B, GEOL 495A-495B, MATH 495A-495B, and PHYS 495A-495B.)

ASTR 495B Seminar (1) (other) Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. Students are required to present a seminar for a letter grade. Pre: senior standing, or instructor's consent. (Same as CHEM 495B, GEOL 495B, MATH 495B, and PHYS 495B).

ASTR 496 Space Studies Seminar (1) Seminar presentations of topics related to space exploration by invited speakers, faculty, and enrolled students. Students are required to prepare and submit reaction papers/essays.



ASTR x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ASTR x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Biology (BIOL) Courses

College of Arts and Sciences (CAS)

BIOL 101 General Biology (3) A one-semester introductory biology course for non-majors.

BIOL 101L Gen Biol Lab (1) (lab) Laboratory for General Biology. (Optional but recommended)

BIOL 125 Intro Cell & Molecular Biol (3) 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 151).

BIOL 156 Nat Hist & Conservatn Hawn Isl (3) The formation of the Hawaiian Islands, establishment of their native terrestrial and marine flora and fauna, and human impacts and conservation. (Same as MARE 156). (Attributes: GAHP, HPP)

BIOL 156L Nat History Field Trips (1) (lab) Field trips for Natural History and Conservation of the Hawaiian Islands. (Same as MARE 156L). (Attributes: GAHP)

BIOL 171 Introductory Biology I (3) Principles of cell structure, replication, and metabolism. Classical and molecular genetics, and evolution. Biodiversity of prokaryotes, viruses, fungi, and plants. Plant structure and function. Biology 171 and 172 are offered both semesters, and students may enroll in either (but not both) during the fall or spring semester. (Previously offered as BIOL 175)

BIOL 171L Introductory Biology I Lab (1) (lab) Laboratory for Introductory Biology I. Laboratory exercises covering cell structure, replication, and metabolism; classical and molecular genetics; evolution; and biodiversity of prokaryotes, viruses, fungi, and plants. (Previously offered as BIOL 175L)

BIOL 172 Introductory Biology II (3) Biodiversity of animal-like protists, invertebrates, and vertebrates. Animal tissues, sensory reception and integration, endocrine systems, support and movement, circulation and immunity, gas exchange, digestion, kidney function, reproduction and development. Population and community ecology, energy flow and biogeochemical cycles. BIOL 171 and 172 are each taught both semesters, and students may enroll in either (but not both) during either fall or spring semester. (Previously offered as BIOL 176)

BIOL 172L Introductory Biology II IAB (1) (lab) Please contact the department or division office for more information about this course.

BIOL 190 Hawn Marine Field Experience (2) 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). (Attributes: GAHP)

BIOL 205 Gen Entomology (3) Structure, classification and identification of insects. Pre: BIOL 171 or 172 or consent of instructor. (Same as ENTO 304).

BIOL 243 Human Anatomy & Physiology I (3) Basic structure and function of human tissue and organ systems, including skeletal, integumentary, muscular, respiratory, circulatory, and immune systems.

BIOL 243L Human Anatomy & Physio I Lab (1) (lab) Laboratory experience with the tissue and organ systems covered in BIOL 243 lecture. Hands-on training in tissue dissection, microscopy, physiological measurement, and safe lab technique. Pre: Concurrent enrollment in, or previous completion of BIOL 243 lecture.

BIOL 244 Human Anatomy & Physiology II (3) Basic structure and function of human tissue and organ systems, including digestive, urinary, nervous, endocrine, and reproductive systems. Pre: BIOL 243 or equivalent, or instructor's consent.

BIOL 244L Human Anatomy & Physio II Lab (1) (lab) Laboratory experience with the tissue and organ systems covered in BIOL 244 lecture. Hands-on training in tissue dissection, microscopy, physiological measurement, and safe lab technique. Pre: Concurrent enrollment in, or previous completion of BIOL 244, or instructor's consent.

BIOL 254 Fundamentals of Nutrition (3) Comparative animal digestive systems and metabolism. Essential nutrients, their functions, mechanisms of action and interrelationships. (Same as ANSC 254). (Attributes: GCC)

BIOL 270 Intermed Cell & Molecular Biol (3) Integrated cell and molecular biology for the science majors. Modern advances in recombinant DNA technology. Pre: BIOL 171, BIOL 172, and CHEM 162 or instructor's consent. Recommended: CHEM 242 which may be taken concurrently.

BIOL 270L Inter Cell & Molecular Bio Lab (1) (lab) Laboratory exercises in cell and molecular biology with an emphasis on the use of modern methods of DNA analysis. Pre: BIOL 171-171L, BIOL 172-172L, CHEM 162L and BIOL 270 or concurrent enrollment, or instructor's consent. Recommended: CHEM 242L which may be taken concurrently.

BIOL 275 Fund Microbiology (3) A survey of microbiology with emphasis on bacteria, viruses, infectious diseases and their control. Pre: one semester of college chemistry. Recommended: at least one semester of BIOL 101, 175 or 176. (Attributes: ALEX, GCC)

BIOL 275L Microbiology Lab (1) (lab) Required laboratory for Fundamentals of Microbiology.

BIOL 280 Biostatistics (3) Statistical analysis as applied to research in the Biological Sciences. Theory and applications of statistics; experimental design; basic statistical concepts; hypothesis testing; parametric and non-parametric analyses. Group and independent projects, computer analysis of data.

BIOL 281 General Ecology (3) General ecological and evolutionary principles. Relationship of plants and animals to their environments. Processes regulating growth and evolution of populations. Community structure and ecosystem function. Pre: BIOL 171 or BIOL 172. Recommended: Completion of both BIOL 171 and BIOL 172, and high school algebra or equivalent.



BIOL 281L General Ecology Lab (2) (lab) Laboratory supporting BIOL 281. Field trips to view and sample representative ecosystems, instruction in basic field biology, identification of Hawaiian organisms, laboratory demonstrations. Basics of experimental design and hypothesis testing and use of simple statistics, culminating in written laboratory reports in scientific paper format. Pre: BIOL 171L and BIOL 172L.

BIOL 309 Biogeography (3) 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 175 or 176; or instructor's consent. (Same as GEOG 309). (Attributes: GAHP)

BIOL 323 Mammal Physiology (3) Structure and function of the animal body. A general study of anatomy, but emphasis placed on understanding the physiology. (Same as ANSC 350)

BIOL 340 Cellular Neurobiology (3) Cellular and molecular mechanisms in the form and function of the nervous system. Topics include electrophysiology, synaptic integration and plasticity, sensory and motor systems, neuromodulation, and molecular neuropathology. Prerequisite: BIOL 270, equivalent, or instructor permission.

BIOL 357 Evolution (3) 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 125 or 175 or 176.

BIOL 357L Evolutionary Genetics Lab (1) (lab) A laboratory and field course to be taken in conjunction with BIOL 357 lecture. Laboratory exercises will introduce students to the techniques in evolutionary genetics with special reference to Hawaiian plants and animals. Topics to be covered include: quantitative genetics, natural selection molecular genetics analysis of populations and species, ecological genetics and adaptation, and conservation genetics. Pre: BIOL 270, BIOL 270L and BIOL 280.

BIOL 360 Marine Resources (3) 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 MARE 360).

BIOL 366 Trop Marine Rsrch Investigatn (3) 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).

BIOL 371 Biology Of Marine Invertebrate (3) 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: MARE 265 or BIOL 172 or their equivalent, concurrent enrollment in BIOL/MARE 371L. (Same as MARE 371)

BIOL 371L Bio Of Marine Invertebrate Lab (1) (lab) Direct exposure to the major groups of invertebrates in 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: BIOL/MARE 371 or concurrent enrollment. (Same as MARE 371L).

BIOL 375 Biology of Microorganisms (3) Fundamental principles of microbiology combined with recent developments in and applications to microbial evolution, ecology, molecular genetics and immunology. Pre: BIOL 270 and 270L.

BIOL 375L Biology of Microorganisms Lab (1) (lab) Required laboratory for BIOL 375 covering fundamental principles of microbiology (culturing and identification). Supplemental components include specific labs in microbial ecology, molecular immunology, and genetics. Pre: BIOL 270 and 270L.

BIOL 376 Genetics (3) Classical, molecular, and population genetics. Pre: BIOL 270.

BIOL 376L Genetics Lab (2) (lab) Classical genetics usually including crosses with flies, worms and yeast. Molecular genetics usually including DNA gel analysis, construction of recombinant DNA molecules and their expression in transgenic organisms, and Polymerase Chain Reaction amplification of DNA. Optional laboratory for genetics. Pre: concurrent enrollment in BIOL 376 and completion of BIOL 270L or consent of the instructor.

BIOL 381 Conservation Biology (3) Principles of conservation biology and their applications to the maintenance and enhancement of biodiversity. Philosophical basis for conservation, scientific theories and research methods used by conservation biologists, and case studies of studies of scientific and socio-political interactions in conservation problems. Pre: BIOL 281 or instructor's consent.

BIOL 384 Primatology (3) 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 215 or BIOL 172. (Same as ANTH, ENSC 384)

BIOL 392 Biology & Philosophy (3) 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 instructor. (Same as PHIL 392).

BIOL 410 Biochemistry (3) Basic compositions and functions of biological matter, metabolic interconversions and transformations; the bioenergetics involved and the levels of control over these processes. Pre: BIOL 270 and CHEM 242.

BIOL 410L Biochemistry Lab (2) (lab) Electrometric titration and chromatographic analysis of amino acids, advanced quantitative assay of proteins, advanced quantitative assay, purification and kinetic analysis of enzymes. Required laboratory for Biochemistry. Pre: concurrent enrollment in BIOL 410 and completion of BIOL 270L and CHEM 242L.

BIOL 415 Cell Biology (3) Structure, function and behavior of cells, including gene expression, cellular transport, cell signaling, cytoskeleton and cell cycle. Pre: BIOL 270, BIOL 410.

BIOL 415L Cell Biology Lab (2) (lab) Light and electron microscopy of selected cells. Optional laboratory for Cell Biology. Pre: concurrent enrollment in BIOL 415 and completion of BIOL 270L or consent of instructor.

BIOL 417 Plant Anatomy (4) Plant structure in relation to cultural



practices, functions genetic factors and development. Pre: BIOL 171. (Same as HORT 437).

BIOL 425 Water Qual & Aquatic Product (3) (other) Study of water quality and aquatic productivity as it relates to aquaculture and fisheries. Pre: CHEM 161 or consent of instructor. (Same as AQUA 425).

BIOL 436 Animal Cognition (3) (lecture/other) A survey of the historical and contemporary scientific literature on animal cognition using a wide variety of species. The course covers a broad array of topics that may include concept formation, memory processes, numerical competence, social learning and imitation, self-awareness, theory of mind, referential communication and grammatical skills. Pre: PSY 213, PSY 214, and PSY 314 or 350 or instructor's consent. (Same as PSY 436)

BIOL 437 Marine Mammal Behavior (3) An introduction to marine mammals with emphasis on the behavior of marine mammals. Special attention given to those species found in Hawaiian waters. Individual species are examined within a comparative framework. Topics include: behavioral ecology, social behavior, cetacean societies, mating systems, communication, sensory perception, and cognition. Pre: PSY 213, PSY 214, and PSY 314 or PSY 435 or instructor's consent. (Same as PSY 437)

BIOL 442 Comm. Science in K-12 Settings (2) For undergraduate students interested in improving their ability to communicate their scientific knowledge to K-12 learners. The course combines inquiry-based science education methods with teaching experience in a local school classroom or community event. Pre: At least 6 credits of 100 level science courses or instructor consent. This course is dual listed with CBES 642.

BIOL 443 Ecological Animal Physiology (3) Study of the physiological adaptations of animals to environmental variation. The focus will be on how physiological responses to environmental factors determine the geographic distribution of animals. The course will cover the physiological and biochemical mechanisms that permit animals to adapt to potentially stressful environmental conditions, and topics will include food acquisition and digestion, energy allocation, thermal energetics, respiratory gas exchange, activity metabolism, and osmoregulation. Pre: course in basic cell biology: BIOL 125, BIOL 270, or MARE 172; or consent of instructor.

BIOL 445 Behavioral Ecology & Evolution (3) Principles of behavioral ecology and evolution with a focus on conservation biology. Research techniques in behavioral ecology related to analyzing populations in geographically and age-structured populations. The importance of reproductive strategies, habitat selection, foraging behavior, parental care, social organizations, and the importance of migration and movement patterns on the regulation of population sizes and evolution. Population and quantitative genetics as it relates to evolution, speciation, and biodiversity. Pre: BIOL 281 and BIOL 357 or permission of instructor.

BIOL 450 Physiology Reproduction (3) Livestock reproductive anatomy and physiology. Pre: ANSC 141. Recommended: ANSC 350. (Same as ANSC 450).

BIOL 455 Plant Ecology (3) Interactions between plants and the environment at the physiological, population, community, ecosystem scales. Discussion of factors affecting plant distribution and abundance from local to global scales. Plant and people interactions will be noted in the context of our changing planet. Key theories, quantitative measurements, experimentation, and critical analysis will be emphasized through a discussion of primary scientific literature. Pre: BIOL 281 or permission of instructor.

BIOL 457 Vegetation of the Hawaiian Isl (3) This course explores the major types of vegetation in Hawai'i with respect to physical environments and important species. Basic concepts in plant taxonomy and identification are emphasized. Coursework includes field excursions at various sites around the island of Hawai'i to develop methods in surveying and monitoring vegetation. This course also examines major human impacts and conservation challenges. Pre: BIOL 156 or BIOL 281. (Same as ENSC 457).

BIOL 460 Plant Diversity & Evolution (3) The evolution of land plants from mosses to flowering plants in the context of broad-scale environmental changes since the Silurian Period. Origins and diversification of the major lineages of extant and fossil land plants, including transitions in morphology, physiology, and life-cycles associated with adaptive radiations. Hawaii's spectacular plant radiations, and molecular and phylogenetic methods used in reconstructing the evolutionary history of land plants emphasized. Pre: BIOL 357 or permission of instructor.

BIOL 461 Immunology (3) The innate and adaptive immunity, structure and function of antibodies and antigens, synthesis of B and T lymphocytes, and the role immunology plays in the biological and medical sciences. Pre: BIOL 375 or BIOL 172 or instructor's consent. Recommended: BIOL 270

BIOL 467 Ecological Genetics (3) The class focuses on the genetics of whole populations and species. We will examine barriers to gene flow that influence the population structure and distribution of species. The goal of the class is to investigate how genetics informs understanding of the evolution of ecosystems and the dynamics of genetic interactions.

BIOL 477 Avian Biology (3) The biology of birds, including evolution, diversity, systematics, morphology, physiology, behavior, and ecology. This course has a global perspective, but uses examples from Hawai'i wherever appropriate. Pre: BIOL 281 or instructor's consent.

BIOL 477L Field Ornithology (2) This course covers a range of topics and techniques, including: mist-netting, distance sampling, bioacoustic recording, and habitat sampling. It uses birds as a model organism to familiarize students with methods that are important to the field ecologist. This course is highly relevant to students that plan to pursue ecology at the graduate level, and who are interested in careers in wildlife conservation and management. Pre: BIOL 280. Recommended: completion of BIOL 477.

BIOL 481 Trop Island Ecology & Evol (3) The major subdisciplines of ecology and evolutionary biology, with emphasis on the models and methodologies of areas of active research, especially as they relate to tropical islands. Taught using examples of published research. Pre: BIOL 280, 281-281L and BIOL 357-357L.

BIOL 481L Trop Island Ecology & Evol Lab (2) (lab) Intensive field-laboratory supporting BIOL 481. Research topics selected from current fields of active research within tropical island ecology and evolution. Develop research hypotheses, gather data from field sites, analyze and interpret data and write reports in the style of scientific papers. Pre: concurrent enrollment in BIOL 481 required.

BIOL 482H Honors Appl Of Ecol & Evol (3) Practical experience in performing research projects in Ecology, Evolution and Conservation Biology. Students will submit project proposals for evaluation and approval, do a thorough literature review, develop an experimental design, and collect and analyze data. Students will also prepare a final written report and give a 15-minute seminar presentation on their projects. Pre: BIOL 443L, BIOL 481 and 481L; 3.5 GPA or consent of



instructor with departmental approval.

BIOL 484 Biology Of Fishes (3) 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, genetic interrelationships. Pre: C- or better in MARE 171 or BIOL 172 or their equivalent; C- or better in MARE 265 or equivalent; or consent of instructor. (Same as MARE 484)

BIOL 484L Biology Of Fishes Laboratory (1) (lab) 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).

BIOL 495A Biology Seminar (1) (other) 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.

BIOL 495B Biology Seminar (1) (other) 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.

BIOL 496 Tchg Asstance & Tutorg in Biol (1-3) (lab) Practice in individual tutoring, and in the preparation and presentation of selected topics in Biology lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used to replace any specific course requirements of the Biology major other than elective units. Statements of planned teaching assistance and tutoring activities required. Pre: consent of the supervising instructor and the department chair.

BIOL x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

BIOL x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Business (BUS) Courses

College of Business and Economics (COBE)

BUS 100 Intro To Business (3) A study of business functions, methods of business operation, types of business ownership, and the role of business organizations in contemporary society.

BUS 110 Freshmen Business Experience (3) (lecture/lab/other) BUS 110 is designed to introduce students to the world of business in an integrated, experiential way. Students will be introduced to basic business disciplines and terminology as well as strategies for creative and critical thinking, effective communication, teamwork, and leadership. The course is also designed to help students to identify potential career fields in the realm of business administration, welcome them into the major, and address challenges that first semester university students typically deal with.

BUS 240 Business Law (3) 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.

BUS 290 Critical Thinking (3) This course guides students in thinking more clearly, insightfully and effectively. Concrete examples from students' experience and contemporary issues drawn from forums like YouTube, TV, popular magazines, court cases, the internet, political speeches, etc. help students develop the abilities to solve problems, analyze issues, and make informed decisions in their academic, career, and personal lives. Attention is given to the identification and management of the perception process, use of evidence, use of assumptions, emotional influences, and language in various forms of business and social communication. Pre: sophomore standing

BUS 400 Internship (3) Supervised on-the-job experience in the business community. Comprehensive report by students, meeting with faculty advisor, and performance evaluation from employer required. Pre: Minimum cumulative GPA of 3.00; compatibility with career interests; pre-approved job placement and internship contract and instructor's consent. (Same as ACC 400). (Attributes: ALEX)

BUS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

BUS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Chemistry (CHEM) Courses

College of Arts and Sciences (CAS)

CHEM 100 Chemistry and Society (3) Introductory lecture on chemistry for non-science majors. A basic principles course designed for students in the humanities and social sciences. Current issues and the factors affecting them are presented from a simplified chemical viewpoint. Not repeatable for credit. Previously offered as CHEM 111. (Attributes: ALEX)

CHEM 100L Chemistry and Society Lab (1) (lab) Laboratory principles and techniques presented from the non-science major viewpoint. When possible, experiments will involve everyday phenomena. Not repeatable for credit. Previously offered as CHEM 111L

CHEM 141 Surv Organ Chem & Biochem (3) Brief introduction to organic chemistry and selected topics in biochemistry.

CHEM 151 Elementary Survey of Chemistry (3) Introduction to basic chemical principles. Pre: competence in high school algebra as demonstrated by (a) the math placement test or (b) the first 20 questions of the ACS chemistry placement exam. (Both exams are offered at UH Hilo). Previously offered as CHEM 114

CHEM 151L Elementary Survey of Chem Lab (1) (lab) Introduction to basic chemical laboratory principles and techniques. Pre: concurrent registration in CHEM 151 required. Previously offered as CHEM 114L

CHEM 161 General Chemistry I (3) A mathematically rigorous introduction to chemistry designed for majors in the natural sciences.



Topics covered include measurement and problem solving, structure of atoms, molecules, and compounds; chemical equations, chemical quantities and aqueous reactions; behavior of gases; thermochemistry; quantum-mechanical model of the atom; periodic property of the elements; chemical bonding. Pre: Passing score on the chemistry placement exam. Previously Offered as CHEM 124

CHEM 161L General Chemistry I Lab (1) (lab) Experiments illustrating the fundamental principles and techniques of chemistry. Pre: concurrent enrollment in CHEM 161 or prior credit for CHEM 161. Previously offered as CHEM 124L

CHEM 162 General Chemistry II (3) A mathematically rigorous continuation of CHEM 161. Topics covered include liquids, solids and intermolecular forces; properties of solutions; chemical kinetics and equilibrium; acids and bases; aqueous ionic equilibrium; free energy and thermodynamics; electrochemistry. Pre: a grade of "C" (not "C-") or better in CHEM 161. Previously offered as CHEM 125

CHEM 162L General Chemistry II Lab (1) (lab) Experiments illustrating the fundamental principles and techniques of chemistry. Pre: concurrent enrollment in CHEM 162 or prior credit in CHEM 162. Previously offered as CHEM 125L

CHEM 241 Organic Chem I (3) 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 162 and 162L or instructor's consent.

CHEM 241L Organic Chem I Lab (1) (lab) Techniques of organic chemistry, including synthesis and qualitative analysis. Applications include spectroscopy and chromatography. Pre: CHEM 241 which may be taken concurrently.

CHEM 242 Organic Chem II (3) 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 241 and 241L or instructor's consent.

CHEM 242L Organic Chem II Lab (1) (lab) Techniques of organic chemistry, including synthesis and qualitative analysis. Applications include spectroscopy and chromatography. Pre: CHEM 242 which may be taken concurrently.

CHEM 274 Principles of Analytical Chem (3) Principles of data analysis and calibration of electroanalytical, spectroscopic, chromatographic, gravimetric, and volumetric methods. Pre: C or better in CHEM 162 and 162L.

CHEM 274L Princ Analytical Chem Lab (2) (lab) Principles of data analysis and calibration of electroanalytical, spectroscopic, chromatographic, gravimetric, and volumetric methods. Pre: C or better in CHEM 162L.

CHEM 320 Descriptive Inorganic Chem (3) The classification of inorganic compounds, their properties and fundamental theories. This course is followed by CHEM 421. Pre: CHEM 161 and 162.

CHEM 341 Qualitative Org Analysis (2) Identification and characterization of organic compounds and mixtures by chemical and spectroscopic techniques. Pre: CHEM 242 and 242L or instructor's consent.

CHEM 341L Qualitative Org Ana Lab (2) (lab) Identification and

characterization of organic compounds and mixtures by chemical and spectroscopic techniques. Pre: CHEM 242 and 242L or instructor's consent.

CHEM 350 Phys Chem for Life Sci (3) 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.

CHEM 350L Phys Chem for Life Sci Lab (2) (lab) Laboratory techniques in Physical Chemistry with emphasis in the life sciences. Pre: CHEM 162L and CHEM 350 which may be taken concurrently.

CHEM 351 Physical Chemistry I (3) Principles and theories of physical chemistry at the macroscopic level such as thermodynamics, equilibria, states of matter and kinetic and molecular theory. For chemistry majors and other physical science majors. May be taken before or after CHEM 352. Pre: CHEM 242, MATH 231, PHYS 170.

CHEM 351L Physical Chem I Lab (1) (lab) Laboratory techniques in physical chemistry at macroscopic level. Pre: CHEM 351, which may be taken concurrently.

CHEM 352 Physical Chemistry II (3) Principles and theories of physical chemistry at the microscopic level such as kinetics and quantum mechanics; intended primarily for chemistry majors. May be taken before or after CHEM 351. Pre: CHEM 242, PHYS 272, MATH 231.

CHEM 352L Physical Chem II Lab (1) (lab) Laboratory techniques in physical chemistry at the microscopic level. Pre: CHEM 352, which may be taken concurrently.

CHEM 360 Environmental Chemistry (3) Will include the use of chemical concepts and principles to explore and understand the environment. Natural and anthropogenic aspects of environmental chemistry will be addressed including chemical cycles and systems, pollution, 'green chemistry', and how chemical events can affect local and global processes. Pre: CHEM 162 with C or better grade.

CHEM 415 Chemistry of Biotechnology (3) This course will focus on the fundamentals of biotechnology beginning with the history and foundation of the field followed by detailed chemical and biochemical basis of well established applications of biotechnology in agriculture and the manufacture of pharmaceuticals. Pre: BIOL 410.

CHEM 415L Biotechnology Laboratory (2) (lab) Students will systematically develop skills and understanding of the basic laboratory methods used by biotechnologists. Students will gain experience in biological separation methods, enzyme and protein assays, recombinant DNA techniques, and growth of bacteria and mammalian cells. Pre or coreq: CHEM 415.

CHEM 421 Inter Inorganic Chem (3) The classification of inorganic compounds, description and fundamental theories. Course includes molecular orbital consideration. Pre: CHEM 352, which may be taken concurrently. Recommended: MATH 206.

CHEM 431 Instrumental Analysis (2) Introductory instrumental analysis for chemistry majors but recommended for other natural science majors. Pre: CHEM 274 with C or better grade, or instructor's consent.

CHEM 431L Instrumental Analysis Lab (2) (lab) Introductory instrumental analysis for chemistry majors but recommended for other natural science majors. Pre: CHEM 274L with C or better grade or instructor's consent.



CHEM 441 Inter Organic Chem (3) 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.

CHEM 451 Inter Physical Chem (3) Advanced topics in Physical Chemistry such as chemical kinetics, molecular spectroscopy, electrochemistry, thermodynamics and statistical thermodynamics, surface chemistry, and crystallography. Pre: CHEM 352 or instructor's consent.

CHEM 487 Environmental Toxicology (3) Biochemical basis for toxicity. Chemical distribution and fate in the body; molecular mechanisms and effects of toxic action. Emphasis on environmental toxicants. Pre: upper-division courses in biochemistry and physiology or instructor's consent.

CHEM 495A Seminar (1) (other) Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. Must be taken CR/NC. Pre: senior standing or instructor's consent. (Same as ASTR 495A, PHYS 495A, GEOL 495A, and MATH 495A)

CHEM 495B Seminar (1) (other) Seminar presentations of topics in the physical sciences by faculty, enrolled students and invited speakers. Students are required to take course for a letter grade. Pre: senior standing or instructor's consent. (Same as ASTR 495B, PHYS 495B, GEOL 495B, and MATH 495B)

CHEM x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

CHEM x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Chinese (CHNS) Courses

College of Arts and Sciences (CAS), Languages

CHNS 101 Elementary Chinese I (4) Development of listening, speaking, reading and writing Mandarin Chinese. Structural points introduced inductively. Laboratory drill. (Attributes: GAHP, HPP)

CHNS 102 Elementary Chinese II (4) Development of listening, speaking, reading and writing Mandarin Chinese. Structural points introduced inductively. Laboratory drill. Pre: CHNS 101 or equivalent. (Attributes: GAHP, HPP)

CHNS 107 Accelerated Elementary Chinese (8) Contents of CHNS 101-102 covered in one semester. Meets two hours daily, Monday through Friday. Language laboratory required. Development of four skills - speaking, listening, reading and writing - and an adequate knowledge at the beginning level of Chinese language. A variety of classroom activities: dialogues, role plays, individual and group presentations, grammar exercises, individualized laboratory work and A/V-aided activities, and reading and writing practice in the basic scripts ("pinyin" and "hanzi" characters). (Attributes: GAHP)

CHNS 200 Conversational CHNS Business (3) This course is intended for students who have gained some basic knowledge of Chinese

language but would like to improve their fluency, especially for business situations. Over this course, students practice conversational skill through a variety of topics, such as greetings and self-introduction, formal meetings, business negotiations, trade or financial transactions, and in any other situations that may be appropriate for an international business situation. Pre: CHNS 102 or 107. (Attributes: HPP)

CHNS 201 Intermediate Chinese I (4) Second-level training in listening, speaking, reading and writing skills. Pre: CHNS 102 or equivalent. (Attributes: GAHP, HPP)

CHNS 202 Intermediate Chinese II (4) Second-level training in listening, speaking, reading and writing skills. Pre: CHNS 201 or equivalent. (Attributes: GAHP, HPP)

CHNS 320 CHNS Festivals & Food Culture (3) This course discusses traditional Chinese festivals and food as important aspects of Chinese culture. It investigates the most important festivals and related customs, what food people cook and eat during the festivals, and why. It also explores popular styles of cooking in different areas and how they have shaped the diversity of Chinese people. Students will interact with local Chinese restaurants or families for the cultural tradition of Chinese cuisine.

CHNS 350 Chinese Folklore and Symbolism (3) This course explores ancient Chinese folktales and symbolism that are significantly connected with Chinese cultural tradition, social life and customs, as well as distinctive aesthetics. Interesting and important stories are selected from mythology, legends, and fables, covering various themes such as the creation of the universe, enlightenment of virtues and ethics, philosophy of life, tragedies and praises for loyal love, as well as women heroes. Moreover, auspicious symbols in Chinese life are discussed in their historical and cultural context and with regard to their impact on Chinese society, customs, and aesthetics. (Attributes: HPP)

CHNS 360 Chinese Culture through Film (3) This course introduces Chinese culture, history, society, peoples, customs and major civilizations through a selection of films produced both in mainland China, Hong Kong, Taiwan and in the West. The films serve as an overview of Chinese history from ancient to modern times and a reflection of many aspects of Chinese culture. Each film is featured in class, showing the most important portions of it, to be followed by an open discussion. Students are asked to write a short comment on each film to be discussed. Knowledge of Chinese language is not needed.

CHNS 364 Chns Lit in Eng-Modern (3) Survey of major Chinese writings from 1919 to the present. Knowledge of Chinese is not required. (Same as ENG 364)

CHNS 381 Chns Cult thru Arch & Garden (3) This course introduces Chinese architecture and gardens as an important part of traditional Chinese culture. It emphasizes distinctive cultural implications in the architecture and its decorative arts, especially symbolism of architectural design (such as layout, size, form, elements, color). It also explores the artistic theories and cultural factors in the craft of imperial and private gardens. (Attributes: HPP)

CHNS 410 History of Chinese Characters (3) This course introduces Chinese civilization and history through an investigation of the evolution of Chinese script and the socio-cultural factors related to it. Archaeological and historical materials are used in introducing its various forms in history: from tortoise shell script to seal and clerical scripts as well as regular script. Historical and cultural setting of creating and using the specific script are examined. The transformation of Chinese script into Japanese "kanji" and cultural exchange between Asian countries are



also discussed. Pre: one of the following: CHNS 101, CHNS 107, JPNS 101, JPNS 101S, or JPNS 107. (Same as LANG/JPST 410) (Attributes: GAHP)

CHNS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

CHNS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Civil Engineering (CE) Courses

College of Arts and Sciences, Pre-Engineering Program

CE 270 Applied Mechanics I (3) Equilibrium of particles, rigid bodies, frames and machines; vectors, centroids, friction, and moments of inertia. Pre: PHYS 170 and MATH 206.

CE 271 Applied Mechanics II (3) Dynamics of particles and rigid bodies: force-acceleration; impulse-momentum; work-energy. Pre: CE 270 and Math 231.

CE x94 Special Topics in Subject Matter (Arr.) (10) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

CE x99 Directed Studies (Arr.) (10) Statement of planned reading or research required. Pre: instructor's consent.

Communication (COM) Courses

College of Arts and Sciences (CAS)

COM 100 Human Comm in Diverse Society (3) The role of human communication in meeting the task and social needs of a multicultural society. Emphasis on communication concepts, principles, and cultural issues in interpersonal, small group, organizational, public, mediated, and global contexts.

COM 200 Interpersonal Comm (3) The fundamental concepts of interpersonal communication: verbal and nonverbal communication in face-to-face encounters.

COM 240 Professional Communication (3) An overview of the various approaches to organizations, communication, public relations, leadership, and interviewing. Professional presentation, writing, small group problem solving and consulting skills are developed. Also addressed are diversity, technology, and globalization issues.

COM 241 Health, Culture and Diversity (3) This course is an overview of the study of health communication. It is aimed to provide exposure to concepts and principles in the field, focusing on advocacy and individual awareness in current events. Topics will include the dynamics shared between health care providers and patients, the role of mass media, promotion of public health campaigns and culturally diverse

approaches to health care.

COM 251 Public Speaking (3) Analysis, preparation and delivery of speeches. Emphasis on content, organization and style.

COM 260 Media and Culture (3) Historical and contemporary overview of television, radio, film, and the press in American culture.

COM 270 Intro to Theories of Human Com (3) Examination of the theoretical foundations of the human communication discipline. Coverage of traditional and contemporary theories in such areas as interpersonal, small group, organizational, intercultural, public and mass communication.

COM 273 Radio Drama (3) A survey and production course in Radio Drama with emphasis on the actual production of radio drama(s) for public broadcast. Pre: DRAM 170, COM260 or instructor's consent. (Same as DRAM 273)

COM 285 Intro to News Writing & Report (3) Prepares students to write for newspapers, the internet, and other journalistic outlets. Includes coverage of news conferences, county council meetings, trials, sports, and writing feature stories. (Same as ENG 285)

COM 287 Media Writing Practicum (3) (lecture/lab/other) Further preparation for the media profession through critical analysis of online and print media. Emphasis on encouraging applied learning experiences through responsible submission to publications and portfolio development. Pre: ENG 100, 100T, ESL 100, 100T or instructor's consent.

COM 340 Interviewing (3) This course focuses on the interview process as a collaborative dialogue. Emphasis is placed on framing the interview, listening ethics, cultural diversity, and the development of interviewing skills. Pre: COM 200 or consent of instructor.

COM 344 Sustainability, Com & Culture (3) (lecture/other) Diverse theories and perspectives related to sustainability, communication and culture are examined. Sustainability is related to global and local cultures, the development of healthy individuals, relationships, organizations, communities. The ways that rhetoric, media, and new technologies may be used to promote sustainability are examined. (Attributes: ALEX, GCC)

COM 350 Intro Human Commun Research (3) An introduction to basic communication research approaches, reviewing the literature, and reporting research.

COM 351 Com in Multicultural Workplace (3) This course provides intercultural insights into organizational communication and addresses leadership and membership, decision-making and conflict resolution in the multicultural workplace.

COM 352 Comm in Small Groups (3) Discussion processes in small groups. Effects of variables such as group organization, leadership, membership, goals on how a group attempts to achieve its purpose.

COM 354 Comm in Innovation (3) The role of communication as a change agent in society. Communication strategies in diffusion of information.

COM 358 International Communication (3) This course surveys major topics in international communication, international and national policies on media, comparative media systems, and issues of development.

COM 359 Intercultural Communication (3) Linguistics and nonverbal



variables that influence the effectiveness of cross-cultural communication. (Attributes: ALEX, GAHP, GCC)

COM 360 Impact Of Mass Media (3) Analysis of some of the major effects of the mass media on the individual and society.

COM 361 Media Ethics and Law (3) Media Ethics and Law is an introduction to the ethical and legal issues related to communication and speech. It also gives students a better understanding of the U.S. Constitution and its role in our legal system. Students are provided tangible guidelines within which to communicate. They will understand how and why speech is protected and when that speech crosses the line into becoming unprotected speech.

COM 362 Broadcast Comm Practicum (3) (other) Field experience in basic principles of broadcast production and communication requiring a minimum of ten hours each week in an assigned broadcast communication setting. Pre: instructor's consent required. May be repeated once for credit.

COM 365 Modern American Cinema (3) The study of American film since WWII, drawing from such film genres as the detective-hero, the musical, the western, comedy, social realism, and melodrama.

COM 366 Asian Cinema and Television (3) Examines Asian film and television industries. It surveys the production, distribution, and consumption process of television programs and movies in China, Hong Kong, India, Japan, South Korea, Taiwan, and the Middle East.

COM 368 Communication & Social Change (3) This course introduces students to theories and practices of social change from a communication perspective and explores the historic and contemporary role of communication in local, national, and international social movements.

COM 370 Persuasion (3) 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.

COM 371 Communication Ethics (3) This course examines ethical standards in evaluating communication acts and events and discusses ethical issues and challenges in communicating in different contexts

COM 375 Nonverbal Communication (3) The nonverbal dimensions of human communication.

COM 385 Advanced Media Writing (3) (lecture/lab/other) A hands-on class that prepares students for the communication field. An advanced media writing course that includes a final in-depth, investigative news article. Students will build their portfolios by developing articles and submitting them for publication as well as for class credit. Pre: ENG 100/100T, ESL 100/100T, COM 285, or instructor's consent.

COM 387 Performance Education (3) In this course, students are guided through the process of researching, writing, rehearsing and performing a series of educational and entertaining presentations that deal with science and Hawaiian culture. Presentations will be shared with the general public in a museum theater setting at Imiloa Astronomy Center of Hawai'i. Course may be repeated once for credit. Pre: COM 251 or DRAM 171 or DRAM 221 or instructor's consent. (Same as DRAM 387)

COM 391 General Semantics (3) Understanding language, verbal meaning and implication, roles of perception and assumption (inference and judgment) in human relationships.

COM 400 Seminar in Human Dialogue (3) An exploration of the writings of those who contemplate "dialogue," generally considered to be the highest quality form of human communication. Pre: COM 200 and 251 or instructor's consent.

COM 420 Family Communication (3) Foundational concepts and theories are introduced. Communication dynamics within families are explored. Narrative, functional, interpretive, and systems approaches to family communication are included. Cultural influences are examined. Conditions necessary for optimal family functioning are addressed. (same as WS 420)

COM 430 Health Communication (3) Survey of health communication research including doctor- patient interactions, social support, culture and diversity issues in healthcare, and public health campaigns. Special attention will be given to the role of technology in health communication. Cultural influences on health beliefs and practices are examined.

COM 440 Organizational Communication (3) Organizational communication is an intensive consideration of the role of human communication in organizational effectiveness. The course emphasizes both theory and practice and focuses on historical and contemporary trends affecting organizations. Pre: COM 200 and 251 or instructor's consent.

COM 441 Leadership & Communication (3) Relationships between communication and leadership including a consideration of relevant theories, concepts, tools, and skills. Leadership and communication are examined in relation to organizational culture, change, diversity, technology, and decision making. Pre: COM 200 and 251 or instructor's consent.

COM 442 Communication & Conflict (3) Relationship between human communication and conflict. The relationship among personal history, culture, gender, power, communication, and conflict is considered. Students gain experience in assessing and intervening in conflict situations in both professional and personal contexts. Western, Eastern, and Hawaiian approaches to conflict management are included. Pre: COM 251 or instructor's consent.

COM 444 Public Relations (3) An overview of the practice of public relations in business, educational institutions, non-profit organizations, and government. Students will learn how to interact with public relations professionals, the media, write press releases, and design and evaluate campaigns. Pre: COM 251 or instructor's consent.

COM 450 Human Communication Theory (3) Examination of traditional and contemporary theories in the study of human communication.

COM 451 Communication and Ethnography (3) Study of ethnography as a qualitative research method. Opportunities to collect data in the field by participating and observing (writing field notes, videotaping, and/or audio taping), interviewing (videotaping or audio taping), and investigating texts (documents, diaries, photographs, films, etc.) are provided. New ethnographic form such as autoethnography, co-constructive narrative, interactive interviewing, creative non-fiction, poetry, fiction and performance are introduced.

COM 455 Com & Culture Asian Americans (3) Examination of communication patterns of the major Asian American ethnic groups. Particular emphasis will be placed on the influence of ethnic-cultural identities, cultural variability, immigration patterns, and other relevant issues on the communication behavior of Asian Americans.



COM 456 Asian Perspectives on Commun (3) This course surveys indigenous concepts and theories of Asian cultures and communication and compares Eastern and Western perspectives on humans communicating. (Attributes: GAHP)

COM 457 Japanese Culture & Commun (3) This course explores aspects of Japanese communication from cross-cultural perspectives and examines problems in intercultural interactions between Japanese and non-Japanese. (Same as JPST 457). (Attributes: GAHP)

COM 460 Mass Media Analysis (3) Advanced study in mass communication theory, analysis, and criticism, with emphasis upon the electronic mass media. Pre: Com 260 or 360 recommended.

COM 461 Race and Gender in Media (3) This course explores the dynamic interactions between race, gender and the mass media. Specifically, it examines media representations of race and gender and their cultural, sociological, and psychological effects in the society. Pre: COM 260, 360 or instructor's consent. (Same as WS 461).

COM 475 Seminar in Listening (3) (other) Exploration of effective and ineffective listening behaviors in everyday life is the primary course topic. Research and scholarship on the topic of listening will be surveyed. An effort will also be made to refine students' actual listening skills. Pre: COM 200.

COM 488 Seminar in Social Media (3) Research seminar examining the effects of social media on identity, relationships, information seeking, communities, news production, and civic engagement. Social media analytics tools are introduced.

COM x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

COM x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Community Health Education (CHE) Courses

College of Arts and Sciences (CAS)

CHE 201 Community Needs Assessment (3) The purpose of a needs assessment is to identify unmet community needs and plan ways to meet them. In this course students will learn the process of collecting, analyzing and reporting information about the needs in a community as well as its strengths and assets.

CHE 210 Health Behavior Theory (3) This course explores the theoretical basis of health behavior. Students will be introduced to social and behavioral science theories that are used to understand health behaviors and guide interventions and programs.

CHE 301 Community Health Evaluation (3) This course will cover the core knowledge and skills involved in program evaluation and provide hands-on experience in evaluation design and implementation. Pre-req CHE 201

CHE 302 Community Health Management (3) Introduces students to

concepts and issues related to healthcare leadership. Topic areas include motivation, leadership, organizational change, human resources administration, organizational theory, strategic planning, and management control systems.

CHE x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

CHE x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Computer Science (CS) Courses

College of Arts and Sciences (CAS)

CS 100 Prin Of Computer Sci (3) General survey of the entire field of computer science. Principles of machine architecture, human/machine interface, data organization, and their interrelationship.

CS 101 Digital Tools for Info World (3) Hands-on computer class with emphasis on producing professional-level documents, spreadsheets, presentations, databases and web pages for problem-solving. Includes concepts, terminology and a contemporary operating system. Meets requirements for the College of Business at UH Manoa and UH Manoa's Biology program and Botany department. Prepares students for College of Business Computer Competency certification test at UH Hilo.

CS 102 MS Office Tools for Math & Sci (3) Use of symbols, equations, images in scientific documents. Computations using spreadsheets with sums, averages, and scientific functions. Data analysis: curve fitting, interpolation, statistics. Data presentation: visualization, charts, and graphs. Symbolic computation. Database processing: forms, queries, reports, VBA. Additional topics chosen from: real-time data acquisition, more advanced statistical methods, system simulation. Intended for science majors. (Same as MATH 111) (Satisfies a Quantitative Reasoning General Education requirement as a Mathematics course)

CS 130 Beg Graphics, Game Programg (3) Introduction to two-dimensional graphics and game programming: graphic elements, layers and simple animation; principles of game design and implementation; emphasis on Flash and Action Script programming; game physics; simple AI techniques. Previous programming experience helpful but not required.

CS 132 Intro to Health Informatics (3) This introductory course will cover a broad range of topics relating to the area of health informatics and health care technology with a focus on standard and current software tools.

CS 135 Animation Programming (3) A gentle introduction to programming with user-friendly software (Alice). Students use storyboarding design strategies and create Disney/Pixar-like animations with objects in three-dimensional virtual worlds. These animations promote an understanding of basic programming constructs including, control structures and object-oriented programming. Projects based on Hawaiian and Pacific themes will be emphasized. Open to all students; especially intended for those with no programming experience. Computer science majors may take this course to prepare for CS 150.



(Attributes: HPP)

CS 137 Digital Media with Flash (3) Use digital images, sounds, and video to create slide shows, animation, podcasts, tutorials, demonstrations, e-portfolios, etc. Save to DVD and web pages. Learn Flash and other software. Students may use existing content such as research project photos. Pre: any prior CS course or instructor's consent.

CS 138 Intro to Computing with Robots (3) A gentle introduction to computer programming using robot kits and a high level programming language. Students will learn how to control and communicate with robots and at the same time gain an understanding of basic programming constructs, including control structures and object-oriented programming. Student projects will include use of robots to simulate space exploration as well as other tasks suited to robots. Computer science majors may take this course to prepare for CS 150.

CS 140 Multimedia Programming (3) An introduction to computer programming in the context of multimedia. Introduces students to some of the principles of computer science. Students will learn how to write computer programs (in Python) for creating and manipulating three types of media: pictures, sounds, and movies. Computer science majors may take this course to prepare for CS 150.

CS 141 Discrete Math for Comp Sci I (3) Includes logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, probability theory. Not open to students with credit in Math 310. Pre: MATH 140x or MATH 135 and MATH 140.

CS 150 Intro To Computer Science I (3) Intended for Computer Science majors and all others interested in the first course in programming. An overview of the fundamentals of computer science emphasizing problem solving, algorithm development, implementation, and debugging/testing using an object-oriented programming language. Pre: MATH 135 or higher or Placement into MATH 135 or higher.

CS 151 Intro to Computer Sci II (3) Reinforces and strengthens problem solving skills using more advanced features of programming languages and algorithms such as recursion, pointers, and memory management. Emphasizes the use of data structures such as arrays, lists, stacks, and queues. Pre: CS 150.

CS 200 Web Technology I (3) Introductory web page authoring. Creation of client-side web pages using web authoring language and style sheets. Consideration of graphical design elements, validation, browser compatibility, and accessibility. Use of scripting language to add dynamic elements to web pages.

CS 201 Web Technology II (3) Intermediate web page authoring. Creation of web pages that present data from XML sources and use XSLT transformations. Development of an e-commerce web site that uses a standard browser to accept user input, processes the user input with business logic, and connects to a back-end SQL database. Publication of web site to a web server. Pre: CS 200 or instructor's consent.

CS 205 PC Hardware (3) An introduction to the hardware components and assembly of personal computers and their connectivity to networks. Includes laboratory and hands-on assembly.

CS 241 Discrete Math for Comp Sci II (3) Includes functions, matrices, graph theory, trees and their applications, Boolean algebra, introduction to formal languages and automata theory. Pre: CS 141 and MATH 205.

CS 266 Comp Org & Assembly Lang (3) Organization of computers;

assembly language; instruction sets: CPU; memory; input/output; interrupts; DMA. Pre: CS 150.

CS 282 Practical Comp for Sci & Engg (3) Create scientific and engineering computation spreadsheets emphasizing equations, references, mathematical functions, and charts. Use MS Excel to show trends, solve what if scenarios, filter information, and summarize information. Design and create MS Access tables, relationships, forms, queries, and reports to analyze scientific data. This class primarily focuses on advanced features and functions of MS Excel and MS Access and creates applications to solve scientific and engineering problems. Pre: MATH 140X (may be taken concurrently).

CS 300 Web Site Management (3) Advanced topics in web site administration. Issues covered include: site management (operating system, web server and database installation and administration); security (cryptography, authentication, digital certificates); and content (site design, ethical and business considerations). Pre: CS 200 or instructor's consent.

CS 315 Board Game Analysis & Design (3) This course focuses on the design and analysis of modern board games, card games, and other table-top games. Through game play, design, and writing assignments, students will develop critical thinking, problem solving, research and technical writing skills.

CS 321 Data Structures (3) Basic concepts of space/time efficiencies Algorithms and data structures for searching (binary search trees, AVL trees, hash tables) and sorting. Graph algorithms. Data compression using Huffman codes. Pre: CS 151 and 241, or instructor's consent.

CS 340 Graphical User Interfaces (3) Study of the graphical user interface as applied to computer software. Examination of history, human factors, design, technology and implementation of graphical user interfaces. Pre: CS 151.

CS 350 Systems Programming (3) Introduction to systems programming in the UNIX environment. Topics include the UNIX command shells and scripting, the C programming language, UNIX programming tools and system calls, processes and process management, file and console I/O, and other selected topics. Designed for students interested in scientific, engineering or systems programming, systems administration or graduate education in computer science. Pre: CS 151.

CS 407 Intro To Numerical Analysis I (3) 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 MATH 206 and MATH 311 and programming experience. (Same as MATH 407).

CS 410 Elemts Computer Architec (3) (lecture/lab) Basic Machine Architecture, Cache Memory, Computer Arithmetic, RISC, Instructional-level Parallelism, Superscalar Processors, Microprogrammed Control, Parallel Processing. Performance Evaluation. Pre: CS 266 and 321.

CS 420 Database Internals (3) Concepts and methods for managing persistent data. Study of stream, sequential, relative and indexed organizations. Implementation techniques and performance. Introduction to SQL. XML as a data transport and storage mechanism. Pre: CS 321.

CS 421 Database Systems Design (3) Data models: hierarchical, network, relational, object oriented. Relational database management systems. Database design. Client/server systems. Web access to



databases. Database administration and security. Transaction management. Database programming. Pre: CS 420.

CS 422 Database Analytics (3) Further study of database design. Administrative and user capabilities of a modern database management system. Database security. Transaction management. Database programming: client and server. Two and three-tier client server systems. Web services and mobile applications. Data transformation. XML as a data transport, and storage mechanism. Pre: CS 421.

CS 430 Operating Systems (3) Covers the concepts, issues and design of modern operating systems. Topics include processes and state, concurrency, resource management algorithms for memory, processors and I/O devices, protection and security. Case studies of popular workstation, server and mainframe operating systems. Laboratory projects teach concurrent programming and OS implementation techniques. Pre: CS 266, CS 321.

CS 431 Networks & Data Commun (3) Thorough survey course covering major networking concepts such as Link-level Flow, Error Control, Congestive Control and QOS. Modern network protocols such as TCP/IP, ATM, Frame Relay, Ethernet, Fiber Channel and Wireless LANs will be compared and contrasted. Pre: CS 321.

CS 435 Computer Security & Forensics (3) Introduction to the concepts, theory, and application of computer security and computer forensics. Topics include cryptography, user authentication, intrusion detection, malicious software, denial-of-service, firewalls, etc. Software security topics such as buffer overflow, software security other issues, security protocols, and standards. Discuss some basic principles of computer forensics & investigations and reiterate ethical issues. Pre: CS 151

CS 440 Artificial Intelligence (3) 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.

CS 450 Org Of Programming Lang (3) Advanced introduction to the concepts and issues in the design of computer programming languages. Topics include classification of languages, types, semantics, special forms parameter passing, closures, object-orientation, continuations, concurrency, exceptions, interpreters and garbage collection. Laboratory projects highlight design decisions and teach interpreter implementation techniques. Pre: CS 321.

CS 451 Compiler Theory (3) Study of LL, LR, LALR grammars and compiler techniques suitable for programming languages for use in constructing scanners, parsers, code generators, code optimizers for a compiler. Use of compiler construction tools such as lex and yacc to develop a compiler for a block structured programming language. Pre: CS 321.

CS 460 Software Engineering I (3) 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, One Writing Intensive Course. (Attributes: ALEX, GCC)

CS 461 Software Engineering II (3) 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: C or better in CS 460. (Attributes: ALEX)

CS 470 Theory Of Computing (3) Study of various models of computation and their relation to formal languages: finite automata, push-down automata, Turing machines, regular, context-free, and recursively enumerable languages. Unsolvability, NP completeness. Pre: CS 321.

CS 475 Data Visualization (3) This team-taught course provides an interdisciplinary framework for learning cutting-edge data visualization techniques. Students are taught hands-on skills for creating effective data visualization products and tools that can be applied to a broad range of scientific disciplines.

CS 480 Digital Image Processing (3) This course provides introduces digital image processing fundamentals and the software principles used in their implementation. Topics include intensity transformations, spatial filtering, compression, geometric transforms, registration, wavelets, segmentation, and edge detection. This course reinforces theory through a hands-on programming approach. Prerequisite: CS 321

CS 485 Social Network Analysis (3) Covers the six degrees of separation, models of the small world, page rank, network effects, P2P networks, network evolution, spectral graph theory, virus/news propagation, core-periphery, link prediction, power-laws, scale free networks, network communities, hubs and authorities, bipartite cores, information cascades, influence maximization Pre: CS 151

CS 495 CS Professional Seminar (1) (other) Computer science and software engineering are careers demanding technological and ethical application of computer hardware, software, and human resources. Course emphasis is on entry into and growth in these careers showing the balancing of needs amongst technology, employee, employer, and society. Repeatable up to two times for a total of three credits. Pre: CS 321

CS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

CS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Dance (DNCE) Courses

College of Arts and Sciences (CAS), Performing Arts Department

DNCE 110 Pilates Beginning Matwork (1) Body conditioning program in Pilates method. Emphasis on fundamentals and beginning mat exercises.

DNCE 151 Dance Techniques (2) Study of the basic vocabulary of dance and the collaborative contributions of choreographers, dancers and musicians. Experiential work in the development of basic stage movement, including understanding of period demands. May be taken concurrently with music and drama technique courses. Required for all Performing Arts majors.

DNCE 160 Ballet I (3) Introduction to classical ballet. Movements, techniques and appreciation of ballet. Previous experience not required. May be repeated once for credit.



DNCE 180 Jazz Dance I (3) Introductory course in jazz dance style and techniques. May be repeated once for credit.

DNCE 190 Modern Dance I (3) Basic techniques of Modern Dance as an art form. May be repeated once for credit.

DNCE 210 Pilates Intermediate Matwork (1) Continuation of DNCE 110. Emphasis on additional strength and stamina skills. Pre: DNCE 110 or instructor's consent.

DNCE 251 Intro To Dance (3) History, scope, and theory of human movement. Study of the correlation of dance, music, and visual expression. Not a performance course.

DNCE 260 Ballet II (3) Continuation of Ballet I. Movements, techniques, and appreciation of ballet. Emphasis on developing strength, flexibility, and control in classical balletic style. May be repeated once for credit. Pre: DNCE 160 or consent of instructor.

DNCE 280 Jazz Dance II (3) A continuation of Jazz Dance I. May be repeated once for credit. Pre: DNCE 180 or consent of instructor.

DNCE 290 Modern Dance II (3) Second level Modern Dance. Designed to develop physical flexibility, body control, and a more acute rhythmic sense. May be repeated once for credit. Pre: DNCE 190 or consent of instructor.

DNCE 360 Ballet III (3) This course will emphasize intermediate ballet techniques for the dancer with previous training. It will begin the study of pointe work for qualified females and jumps and turns specifically for males. May be repeated once for credit. Pre: DNCE 160, DNCE 260, or instructor's consent.

DNCE 371 Choreography (3) An introduction to the basic techniques of creating dance. Public performance required. May be repeated once for credit. Pre: DNCE 180 or DNCE 190, or instructor's consent.

DNCE 401 Dance Ensemble (3) Preparation and performance of techniques and repertoire at the advanced level. Public performance required. May be repeated for credit. Pre: audition.

DNCE 419 Dance In Education (3) Dance activities for young people. Appropriate for teachers, group workers, recreation majors, and others working with children. Supervised field activities. Pre: Performing Arts core courses, upper division standing, or instructor's consent. (Attributes: ALEX, GCC)

DNCE 450 History of Dance (3) Development of Western theatrical dance from Ancient Greece through 19th century ballet to the present, including modern dance, contemporary ballet, and dance forms of musical theater and film. Pre: Performing Arts Core, upper division standing or consent of instructor.

DNCE 460 Ballet IV (3) Intermediate/advanced ballet technique with the continuation of pointe work for qualified females. Introduction to classical partnering work. May be repeated once for credit. Pre: DNCE 360 and audition.

DNCE x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

DNCE x99 Directed Studies (Arr.) Statement of planned reading or

research required. Pre: instructor's consent.

Drama (DRAM) Courses

College of Arts and Sciences (CAS), Performing Arts Department

DRAM 171 Stage Techniques (2) Required for all Performing Arts majors. Study of the basic vocabulary of the stage and the collaborative contributions of directors, actors, technicians, and house personnel. Experiential work in the development of stage presence and etiquette. May be taken concurrently with music and dance technique courses.

DRAM 221 Beginning Acting I (3) Individual exercises and group activities that emphasize voice, movement, and relaxation through in-class improvisation and performance of monologues and two-person scenes. Beginning play analysis.

DRAM 222 Beginning Acting II (3) Continuation of DRAM 221, with emphasis on building the ensemble, basic character work, refining vocal production, and expanding movement vocabulary. Performance of group scenes from modern and contemporary plays. Play analysis based on method acting theory. Pre: DRAM 221.

DRAM 271 Introduction to Theatre (3) Theatre history and play analysis from the standpoint of production. Lab work in three aspects of play production: acting, directing, design.

DRAM 280 Basic Stagecraft (3) 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. Pre: concurrent registration with DRAM 280L.

DRAM 280L Basic Stagecraft Laboratory (1) (lab) Supervised work in stagecraft, lighting and sound. Pre: concurrent registration with DRAM 280.

DRAM 318 Playwriting (3) 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)

DRAM 321 Styles Of Acting (3) 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 camera. Performance of workshop material. Pre: DRAM 221, 222, and consent of instructor.

DRAM 322 Acting Shakespeare (3) In-depth study of Shakespearean texts from the standpoint of production and acting style. Historical study of Renaissance production techniques. Performance of scenes resulting from work on vocal production, period movement, and text analysis. Pre: DRAM 221, 222, and consent of instructor.

DRAM 330 Stage Management (3) Study of the responsibilities of a production stage manager, from rehearsals through mounting a show, as coordinator of a production team. Development of the prompt book and forms needed to organize the technical elements of a production. Pre: DRAM 271, 280 and 364.

DRAM 340 Stage Makeup (3) 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: DRAM 170 or 221, or previous stage makeup experience, and instructor's



consent.

DRAM 350 Stage Costume (3) 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.

DRAM 350L Stage Costume Laboratory (1) (lab) Basic instruction in the use of sewing machines, patterns and hand-sewing techniques for costume building. Includes understanding of fabrics and specific skills related to garment construction. Required for students in DRAM 350 who do not have previous sewing experience. Pre: Concurrent enrollment in DRAM 350 and permission of the instructor.

DRAM 364 Advanced Theatre Practicum (1-4) (other) 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

DRAM 380 Theatre Design (3) Study of elements of scenic and lighting design for the stage. Production of renderings, models, elevations, and plots. Work on mainstage and/or studio production. Pre: DRAM 264, and art & physics courses required for PARTS degree in Technical Theatre.

DRAM 383 Japanese Theatre & Performance (3) This course introduces the performance traditions in Japan, ranging from rituals to dance and theatre-traditional art forms such as kagura, noh, kyogen, kabuki, bunraku, to modern theatre after Japan's Westernization. Through readings and visual materials, students will observe the historical development of Japanese theatre and other performing art forms, from the ancient period to contemporary. At the same time, students are required to examine the Japanese art forms from the anthropological and sociological perspectives. The unique aspects of Japanese art forms-fusion of daily behavior, cultural appropriation, and intercultural elements-will be considered. Students also look at the role of performing arts and its preservation (like transmission of skills from generation to generation). Pre: ENG 100, 100T, 100H, ESL 100, or 100T. (Same as JPNS/JPST 383) (Attributes: GAHP, HPP)

DRAM 387 Performance Education (3) In this course, the students are guided through the process researching, writing, rehearsing and performing a series of educational and entertaining presentations that deal with science and Hawaiian culture. Presentations will be shared with the general public in a museum theater setting at Imiloa Astronomy Center of Hawai'i. Course may be repeated once for credit. Pre: COM 251 or DRAM 171 or DRAM 221 or instructor's consent. (Same as COM 387)

DRAM 390 Survey Of Drama Literature (3) Analysis and discussion of plays from the canon of Western dramatic literature, focusing on dramatic action, character relationships, play structure, staging, and thematic considerations.

DRAM 419 Drama in Education (3) Study of the theory and application of creative dramatics, developmental theatre, and curriculum-centered drama activities in educational settings serving children and youth. Opportunities for field work will be incorporated into class activities. Pre: Performing Arts core or consent of instructor. (Attributes: ALEX, GCC)

DRAM 421 Acting Troupe (3) Rehearsal and performance of works from Western literature and ethnic non-Western sources, including period drama, avant-garde theatre, and the contemporary drama of Hawai'i and the Pacific. Emphasis on ensemble performance. Refinement of individual skill and group interactions acquired in DRAM 321, 322. Public performance required. May be repeated for a total of 6 semester hours. Pre: DRAM 221, 222, 321, 322, audition, or consent of instructor.

DRAM 430 Directing (3) (other) Basic practical course in how to direct a play. Students direct one-act plays or scenes from full length plays. Pre: DRAM 170, 221, 260, or 264, and 321, and consent of instructor.

DRAM 445 Lighting Design (3) (other) A seminar in theatrical lighting design and presentation. Development of the lighting plot and paperwork used in implementing designs. Study of lighting technology. Pre: DRAM 280, 380, or consent of instructor.

DRAM 483 Modern Drama (3) A study of works which have established or refined major traditions in modern theater, with some reading in critical theory. Pre: 200-level coursework in literature. (Same as ENG 483 Modern/Contemporary Drama (3))

DRAM 490 Lyric Theatre (3) 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.

DRAM 490L Lyric Theatre Lab (1) (lab) Experiential study of notable choreographers, directors, and actors through complete scenes, songs and dances that are representative of the major periods and styles within musical comedy from the 1920s to the present. Emphasizes in-class performance derived from training in voice, dance and acting.

DRAM x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

DRAM x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Economics (ECON) Courses

[College of Business and Economics \(COBE\)](#)

ECON 100 Intro To Economics (3) 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 Hawaii Community College.)

ECON 130 Intro To Microeconomics (3) (Formerly 201) How individual prices are determined. Efficient consumer-producer decision making. Pre: MATH 135 or MATH 125 or MATH 205 or higher (any one of which can be taken concurrently); or instructor's consent.

ECON 131 Intro To Macroeconomics (3) (Formerly 200) The functioning of economic systems with emphasis on the forces determining levels of, and changes in, national income, employment and the price level.



ECON 210 Intro To Global Economy (3) 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.

ECON 300 Inter Macroecon Theory (3) Determination of income, employment, price levels; fiscal and monetary policies. Pre: ECON 131.

ECON 301 Inter Microecon Theory (3) Price determination under monopoly, oligopoly, and competition. Analysis of demand and cost. Pre: ECON 130, MATH 125 or MATH 205.

ECON 302 Managerial Economics (3) 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 130.

ECON 305 Hist Of Econ Thought (3) 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 130, 131.

ECON 310 Economic Development (3) 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 130, 131. (Attributes: GAHP)

ECON 330 Hawaiian Economy (3) 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 130. (Attributes: GAHP, HPP)

ECON 340 Money & Banking (3) 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 131.

ECON 360 International Trade & Welfare (3) Theoretical analysis of international trade, current international economic problems, and trade impact on international welfare. Pre: ECON 130, 131 or instructor's consent.

ECON 361 International Finance (3) Balance of payments, foreign exchange rate policies, and their impact on domestic employment, inflation, internal and external balances, and other related topics. Pre: ECON 130, 131.

ECON 370 Government Finance (3) 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.

ECON 380 Natural Resource Env Eco (3) 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 130.

ECON 390 Econometrics (3) Use of mathematical and statistical techniques to model and test the reality of economic theory, tests of hypotheses and forecasting. Pre: MATH 121 or QBA 260.

ECON 414 Global Topics in Game Theory (3) Game theory is a mathematical tool used in a variety of fields such as economics, political science, law, sociology, biology, and computer science. The purpose of this course is to introduce to game theory and to explore its applications. Topics include but not limited to, deterrence, crisis bargaining, people, war, and terrorism. Pre: ECON 130

ECON 415 SE Asia-China Econ Relations (3) Analysis of Southeast Asia-China economic relations. China's role in economic development of Southeast Asian nations, the bilateral economic relations between each of the Southeast Asian countries and China, the ASEAN-China multilateral relations and the importance of the ASEAN-China Free Trade Agreement to the future of the region and the world. (Attributes: GAHP)

ECON 416 Asia-Pacific Econ Integration (3) Analysis of Asia-Pacific economic cooperation. Trade agenda of the Asia-Pacific as a whole and the free trade perspectives of each sub-region and each country. The importance of the Asia-Pacific free trade area and prospects for linking the region with the rest of the world. Opportunity and strategies for the US' trade with the region. Pre: ECON 130 or instructor's consent. (Attributes: HPP)

ECON 430 Quantitative Forecasting (3) Introductory level of forecasting for business and economics with an emphasis on Hilo and Hawai'i economies and businesses. Topics include time series techniques, linear regression forecasts, several miscellaneous forecasting models, and forecasting evaluation. Pre: QBA 260 or MATH 121 or instructor's consent.

ECON x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ECON x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Education (ED) Courses

College of Arts and Sciences (CAS)

ED 210 Introduction to Teaching (3) This course is an introduction to education with an emphasis on the following topics: the teaching profession, the analysis of reasons for entering teaching and factors that influence these reasons; the characteristics of the present teaching force; complexities of teaching; the current trends and issues in education; and the role of the school within the community. Student will be provided an opportunity for voluntary field experience totaling 10 hours. (Attributes: ALEX, GCC)

ED 243 Intro to Math for Elem Tch (3) Introduction to Mathematics for Elementary Teachers is a hands-on, problem based course designed to help the elementary teacher develop a basic understanding of content area skills as well as process and thinking related to mathematical problem-solving, sets, numbers and operations, number theory, statistics and probability. This course lays a solid foundation for ED 343.

ED 310 Foundations of Education (3) Introduction to the practice of thinking and the development of intelligence within the complexities of a diverse and transforming society. Historic aspects of education are explored along with philosophical and political movements so students



understand education's potential. Critical thinking skills are developed to help students think seriously about education as a potential career. Must be taken for grade. Pre: GPA of 2.5 and junior standing, or instructor's consent.

ED 314 Educational Technology (3) Introduction to the theory and application of multimedia educational technology principles in 21st century learning environments. Course is contextualized in project-based and place-based learning. Special emphasis on Hawaiian and Pan Pacific history and culture. Must be taken for a grade. Pre: CS 101 or equivalent, junior standing or instructor's consent. (Attributes: GAHP)

ED 341 Literacy Dev in Elem School (4) This course is designed to provide participants with basic knowledge and skills which can be used to teach and assess reading and writing to foster literacy development in the elementary school. The content of this course emphasizes foundational knowledge of reading and writing processes (K-6). Field experience: Practical application of literacy theories, methods and strategies in local schools. Supervised observation and teaching with emphasis on reading and writing instruction. Pre: GPA of 2.5 and junior standing, or instructor's consent

ED 342 Science for Elem Schl Teachers (3) Science for Elementary teachers is a hands-on inquiry course designed to help the elementary teacher develop a basic understanding of the process and thinking that relate to scientific inquiry, habits of mind, safety and science and technology in society. In a supportive classroom environment, using place-based education as a model, teacher candidates will build scientific foundation through exploration of science concepts and processes. Must be taken for a grade. Pre: CS 100, GPA of 2.5 and junior standing or instructor's consent.

ED 343 Math for Elem School Teachers (3) Math for Elementary teachers is a hands-on, problem based course designed to help the Elementary teacher develop a basic understanding of the ten NCTM (National Council for Teachers of Mathematics) standards, including content area skills as well as process and thinking that relate to mathematic problem-solving, reasoning, connections, communication and representation. Content topics include fractions, algebraic reasoning, and geometry. It is assumed that students have a solid understanding of sets, numbers and operations, and number theory. Must be taken for letter grade. Pre: GPA of 2.5 and junior standing or instructor's consent.

ED 344 Soc Studies for Elem Teachers (3) An inquiry based course designed to help the Elementary teacher develop a basic understanding of the ten Social Studies themes identified by the National Council of Teachers of Social Studies. Must be taken for a letter grade Pre: CS 100, GPA of 2.5 and junior standing or instructor's consent.

ED 346 Teaching Children's Literature (3) This course focuses on children's literature and its impact on social, emotional and intellectual development for elementary school children. Aesthetic appreciation and creative development will be explored by examining theory and practice about the use of literature with children. Must be taken for a grade. Pre: GPA of 2.5 and junior standing or consent of instructor.

ED 347 Intgr Sci/Soc Stud Elem School (3) (lecture/lab) This course is designed to strengthen prospective elementary teacher content knowledge in science and social studies. Students will gain content knowledge by practicing various methods of teaching integrated science/social studies and develop authentic applications in real world situations. The fundamental science content topics covered will include: the inquiry process, physical, life, earth/space, and technology. The fundamental social studies content topics covered will include: geography, world history, UH history, political science, economics,

anthropology, sociology and psychology. Teaching and learning of these content areas will center on place based education with the local environment as the integrating context. Required for admission into the MAT Program. Must be taken for grade. Pre: GPA of 2.5 and junior standing or instructor's consent.

ED 350 Developmntl Concepts Of Learning (3) Theories of development focusing on the integration of physical, social, emotional and cognitive development during the school-aged years, children (grades K-6) and adolescents (grades 7-12). Systematic observation and analysis of behavior of school-aged children at home, in the community and at school. Must be taken for grade. Pre: GPA of 2.5 and junior standing or instructor's consent.

ED 358 Intro to Adol Writing in Disc (3) This course focuses on exploring the writing skills of adolescents, defined as students in the 6th through 12th grade, and targets pre-MAT students who are interested in becoming secondary teachers. The course will introduce writing curriculum standards and explore instructional strategies that can be used to prepare students in grades 6-12 for writing in college and the workforce. Must be taken for grade. Pre: GPA of 2.5 and junior standing, or instructor's consent.

ED x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ED x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Engineering (ENGR) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

ENGR 102 Engineering the Future I (1) Overview of the engineering discipline, art and profession, impact on society and the environment, and strategies for studying engineering. CR/NC only.

ENGR 103 Engineering the Future II (1) Continuation of the overview of the engineering discipline, art and profession, impact on society and the environment, and strategies for studying engineering. CR/NC only

ENGR 200 Introduction to Energy Science (3) This course studies the relationship between human societies and the global energy system. Topics will include energy in everyday life, the geography, politics and economics of energy. Case studies will be studied.

ENGR 240 Conventional Energies (3) Fundamentals of thermal physics and fluid mechanics. Chemical Bonds, Energy from fossil fuels. Hydropower. Nuclear power. Energy storage. Pre: 6 credits in Natural Science courses.

ENGR 250 Alternative Energies (3) Wind, solar, geothermal, tide and wave power. Brief survey of bioenergy, energy distribution and microgrids. Pre: 6 credits in Natural Science courses.

ENGR 310 Energy Policy Analysis (3) An introduction to how the production and consumption of energy in the United States are regulated at the Federal, Federal, state and local levels. Stakeholders will be



identified, and their roles analyzed. Historical and international dimensions of this topic will also be explored. Hawaii energy policies will be studied in detail. Pre: ENGR 200 or ENGR 240 or ENGR 241.

ENGR 340 Sustainable Biofuels (3) This course provides an introductory overview of the relevance of bioenergy production for the global energy supply, bioenergy conversion technologies and feedstocks, and critically evaluates sustainability issues involved with bioenergy production.

ENGR 361 Energy Laboratory (3) (lecture/lab) Desktop experiments on several of the following: energy content and products of combustion, solar cells, biofuel reactors, heat engines, fuel cells and hydroelectric power. Emphasis will be on quantitative energy balances. Co-req: Either ENGR 240 or ENGR 250, or ENGR 200 with permission of instructor.

ENGR 400 Biochemical Energy Conversion (3) A course on anaerobic digestion and fermentation with application to animal, municipal and industrial wastes, and to the production of synthetic gas and bioethanol. Pre: BIOL 101 or BIOL 125 or BIOL 171, and CHEM 161.

ENGR x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ENGR x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

English (ENG) Courses

College of Arts and Sciences (CAS)

ENG 100 Composition I (3) Instruction and practice in writing clear, effective university-level essays and research paper. Attention to all stages of the process: generating ideas, drafting, revising, and editing. Pre: ENG 100 on Writing Placement Examination.

ENG 100H Honors Expository Writing (3) Honors instruction and practice in writing clear, effective university-level essays and research paper. Attention to all stages of the process-generating ideas, drafting, revising, and editing. Pre: recommendation on Writing Placement Exam, Chancellor's Scholar designation, and instructor's consent.

ENG 100T Composition with Tutorial (3) Instruction and practice in writing clear, effective university-level essays and research paper. Attention to all stages of the process: generating ideas, drafting, revising, and editing. Attending regular sessions is required. Equivalent to ENG 100 or ESL 100. Pre: ENG 100T on Writing Placement Examination.

ENG 200 Intro to Literary Genres (3) An introduction to major genres in literature. The course will be offered at various times with different focuses: (A) Short Story and Novel; (B) Drama; (C) Poetry; (D) Popular Fiction; (E) Mythology and Folklore; (F) Autobiography; (G) Introduction to Graphic Novels and Comics. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T. (Attributes: GH)

ENG 201 Global Cinema (3) A course that offers students a critical examination of worldwide cinema. The course will cover film theory and film making techniques from countries such as Germany, Mexico, China,

Senegal, Iran, and India. Students will undertake a critical study of various schools of film as they pertain to these national cinemas as well as explore the cultural and socio-political controversies surrounding cinematography. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 201)

ENG 202 Literature of Human Rights (3) This course will explore narratives from a human rights perspective, beginning in the era shortly before the adoption of the Universal Declaration of Human Rights in 1948 and extending into the 21st century. Students will focus on geopolitical conditions that contribute to the suppression of human rights in areas around the globe, including, but not limited to, Chile, India, Nigeria, Iran, the Palestinian Territories, and the United States. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 202)

ENG 204 Intr Race/Gender Film Studies (3) This course will focus on how race and gender historically shape individual and cultural experiences in America, as expressed in film. Key works that offer portrayals by and about various groups (i.e. gays/lesbian, immigrants, indigenous communities, mixed-race populations, etc.) will be critically compared and examined. Students will also discuss and address evolving audience responses to these works. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 204)

ENG 205 Hawai'i on Screen (3) A critical look at the development of film in and on Hawai'i. The course will cover a number of silent era films as well as the development of the musical and the war story as popular genres in the Islands. The class will also focus on the problems of cultural, racial and gendered representation in mainstream cinematic depictions of Hawai'i as well as the contemporary emergence of local and indigenous filmmaking. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Attributes: GAHP, HPP)

ENG 206 Intro to Popular Culture (3) This course offers an introductory study of mainstream manifestations of culture. Students will critically assess the production, distribution, and consumption of various popular cultural genres, such as advertising, talk shows, sports programs, music videos and gossip magazines and websites, among many others. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 206)

ENG 209 Writing for Business (3) Working from logical and rhetorical principles, this course prepares students to write in the informative, analytical, and persuasive modes required for their major field and in their careers. Intended for students majoring in Business and related fields. Includes a formal research project and report. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T.

ENG 215 Writing for Hum & Soc Sci (3) Develops research skills and further prepares students to do types of source-based writing commonly expected in the humanities and social sciences. Emphasis on writing from logical and rhetorical principles, especially assertion, analysis, and evaluation. Pre: C or better in ENG 100, 100T, ESL 100, or ESL 100T.

ENG 225 Writing for Sci & Technology (3) Working from logical and rhetorical principles, this course prepares students to write about science and technology in their academic disciplines and careers. Assignments include synthesis, process analysis, and argumentation. Intended for students majoring in the applied and natural sciences. Includes a formal research project and report. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

ENG 240 British Lit's Greatest Hits (3) Designed for non-English majors and students who are considering majoring in English, this course offers an introduction to British literature from the 16th century to the



present. Students will see an overview of British intellectual history and will develop the tools necessary to understand and appreciate great literature as an intellectual and a performance art form. Pre: ENG 100/100T or ESL 100/100T.

ENG 253 World Lit: Class-17th Century (3) World Literature. Major works in translation. Classical to 17th century. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T or instructor's consent.

ENG 254 World Lit: 17th Cent-Present (3) Major works in translation. 254: 17th century to the present. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T or instructor's consent.

ENG 257 Multicultural Literature (3) This is a course designed for students who want to engage literature from various ethnic groups in the U.S. The course includes historical context regarding the production of these literatures, providing an overview of how these groups have developed their own literary techniques, genres, and canons. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as WS 257)

ENG 275 Literature of the Earth (3) Study of how people from a variety of eras and cultures have shaped their responses in poetry, fiction, drama and essays to changes in the natural world. This class will examine issues of globalization and environmental sustainability, with opportunities for research on connections between local and global environmental problems. Pre: ENG 100, ENG 100T, ESL 100, or ESL 100T. (Attributes: ALEX, GCC)

ENG 285 Intro to News Writing & Report (3) Prepares students to write for newspapers, the internet, and other journalistic outlets. Includes coverage of news conferences, county council meetings, trials, sports, and writing feature stories. Pre: ENG 100, ENG 100T, ESL 100, or ESL 100T. (Same as COM 285).

ENG 286 Intro to Creative Writing (3) Introduction to the theoretical, practical and artistic concerns of writing vivid and compelling prose fiction, poetry, and creative non-fiction. Students will be exposed to a range of critical and primary creative writing texts as they produce their own works in each genre. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

ENG 286A Intro to Fiction Writing (3) An introduction to the theoretical, practical and artistic concerns of writing vivid and compelling prose fiction. Students will be exposed to a range of critical and primary creative writing texts as they produce their own works. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Attributes: HPP)

ENG 286B Intro to Poetry Writing (3) An introduction to composing poetic verse. The course will introduce students to basic metrical patterns, rhyme schemes, and forms (including the sonnet, the cinquain, and the villanelle). Students will also undertake a study of key debates in the history of poetry, from both a western and non-western perspective. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

ENG 287 Introduction to Rhetoric (3) Survey of rhetorical history, studies and practices from classical to contemporary. Discussion of social, political, legal and ethical aspects of rhetoric and rhetorical theory. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T.

ENG 289 The Rhetoric of Food (3) A course designed for students interested in learning how and why food plays a central role in cultures around the world. Attention will be paid to how food affects political, religious, economic, social and cultural activities and decision-making in various countries/regions. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

ENG 290 Literature and Medicine (3) English 290 provides students with the opportunity to study writers, poets, and artists confronting timeless issues dealing with the human body. The class will look at how and why novels, short stories, poems, plays and film cover the wide range of biological human conditions, from disease to sexuality to mortality. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T.

ENG 300 Intro to Literary Studies (3) Introduces majors to the methods of research, analysis, close reading and argumentation that are essential to the successful reading of and writing about literature. Included is a comprehensive survey of literary terms, key concepts, literary forms and genres. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T, and ENG 200 (A-F) and one additional 200-level writing or literature class (with exception of ENG 209 and ENG 225) or instructor's consent.

ENG 302 Studies in Myth and Folklore (3) A critical, comparative study of myth and folklore, which provides students with knowledge and analytical perspectives on the way various oral traditions inform English literature, past and present. Pre: C or better in ENG 300 or instructor's consent.

ENG 304 Survey of British Lit I (3) Survey of British Literature, Middle Ages to Enlightenment. Pre: C or better in ENG 300.

ENG 305 Survey of British Lit II (3) Survey of British Literature, Romantics to the Present. Pre: C or better in ENG 300.

ENG 314 Journalism (3) 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, 100T, ESL 100 or 100T, or instructor's consent.

ENG 315 Advanced Composition (3) Writing of essays with an emphasis on rhetorical and stylistic methods, structure, and voice. Pre: ENG 100, 100T, ESL 100 or 100T and one of the following: ENG 209, 215, 225 or 287.

ENG 318 Playwriting (3) Writing one-act plays for the stage and for radio. Examining and applying the requirements and uniqueness of writing for the stage-play and for the radio-drama. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as DRAM 318)

ENG 321 Morphology And Syntax (3) 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 102 or instructor's consent. (Same as ANTH 321, LING 321).

ENG 323 The Literature of Hawai'i (3) A critical analysis of the history of literature in the Hawaiian Islands. Study will touch upon the politicization of the Hawaiian language, the insider/outsider debate, the emergence of local literature, and ethnic/racial divides in contemporary discussions of literary craft and study. Class will include oral narratives (chants, hula), expatriate literature (Bingham, London, Michener), and a wide range of local texts. Pre: C or better in ENG 300 or instructor's consent (Attributes: ALEX, GAHP, GCC, HPP)

ENG 324 Modern English Grammar & Usage (3) The fundamentals of English grammar and syntax, conventions of written and spoken English, and rhetorical choices at the sentence level. Pre: C or better in ENG 100, ENG 100T, ESL 100, ESL 100T, or instructor's consent. (Same as LING 324).



ENG 345 Children & Literature (3) Literature in English for and by children, with special emphasis on the ways in which literature promotes social, emotional, and intellectual development. Pre: C or better in ENG 100, ENG 100T, ESL 100, ESL 100T or instructor's consent.

ENG 347 Pidgins And Creoles (3) 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. Recommended: LING 102 or 121. (Same as ANTH/LING 347) (Attributes: GAHP)

ENG 350 Second Lang Acquisition Theory (3) Current research and theories of learning a second or additional language from social, psychological and linguistic perspectives. Topics include the attainment of communicative competence, the critical period hypothesis, focus on form, individual learning styles, and learner autonomy. The emphasis is on how the knowledge of second language acquisition theory helps improve the quality of classroom language teaching. Pre: C or better in ENG 100, ENG 100T or ESL 100, ESL 100T and LING 102 or instructor's consent. (Same as LING 350)

ENG 351 Amer Lit: to the Civil War (3) American literature to the Civil War. Pre: C or better in ENG 300 or instructor's consent.

ENG 352 Amer Lit: Civil War-Pres (3) American literature from the Civil War to the present. Pre: C or better in ENG 300 or instructor's consent.

ENG 355 Women in Modern Lit & Film (3) Literature and film by and about women from 1900 to the present. Feminist literary theory. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T, and a 200-level literature course or college-level Women's Studies course, or instructor's consent. (Same as WS 355).

ENG 356 Language and Gender (3) Students engage in the analysis of gender as it relates to language and society. Provides students with analytic resources for thinking critically about the relationship between language and social practice. Students gather and analyze data based on current theories. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T and LING 102, or instructor's consent. (Same as LING/WS 356)

ENG 364 Chnse Lit in Eng-Modern (3) Survey of major Chinese writings from 1919 to the present. Knowledge of Chinese is not required. Pre: ENG 100, 100T, ESL 100, or 100T or instructor's consent. (Same as CHNS 364).

ENG 365 Japanese Lit in English (3) Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JPST 365) (Attributes: GAHP, HPP)

ENG 366 Utopia in Literature (3) A study of the "Utopian" theme in literature, from Plato's Republic to the modern science fiction novel. Pre: ENG 100, 100T, ESL 100, or 100T and a 200-level literature course, or instructor's consent.

ENG 370 Advanced Film Studies (3) Students undertake a study of film/editing techniques, genres, and critical theories that influence the production and analyses of film and film-making. This course builds upon 200-level film classes in English. Pre: C or better in ENG 300 or instructor's consent. Recommended: ENG 201, 204, 205, or 206.

ENG 371 Topics in Contemporary Lit (3) 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: C or better in ENG 300 or instructor's consent.

ENG 387 Lit of the Environment (3) A study of modern nature writing and environmental issues in several genres. Students will explore how humans negotiate their place in a variety of physical environments. Pre: C or better in ENG 100, ENG 100T or ESL 100, ESL 100T and ENG 251, 252, 253 or 254 or consent of instructor.

ENG 400 Topics in Classical Literature (3) Studies in Greek and Roman literature from various perspectives (historical, cultural, social). May be offered by genre or theme. May be repeated for credit provided a different topic is studied. Pre: C or better in ENG 300 or instructor's consent.

ENG 418 American Women Writers (3) This course will acquaint students with a variety of writings by women in the Americas. In addition to literary analysis, texts will be viewed in cultural, historical and theoretical contexts. Pre: C or better in ENG 300 or instructor's consent.

ENG 419 Adv Topics in American Lit (3) A course which involves critical analysis of key periods and/or themes in American Literature, ranging from the Transcendentalists to the Beats. The course may also explore major ethnic canons, such as Native American, Chicano/a, Asian American, and African American. The course may be repeated, provided that different topics are studied. Pre: C or better in ENG 300 or instructor's consent.

ENG 422 ESL Teaching Practicum (3) A course requiring students to engage in supervised teaching in an authentic classroom setting with actual learners of ESL. Provides the student with opportunities to observe, describe, interpret and understand the classroom environment and to reflect on the personal and professional attributes required for success in teaching. Students design and implement their own lesson plans and analyze and reflect on the classroom environment in relation to current research. Pre: LING 102, 221 or 331, ENG/LING 324, 350, ENG 484.

ENG 423 Post-Colonial Literature (3) A critical analysis of the development of contemporary world literature in the wake of the fall of European empires. This class is designed to address the importance of writing in an age of changing national identities, shifting alliances, and volatile conflicts. Texts from Africa, Latin America, the Middle East, the Caribbean, and Hawai'i will be featured. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 423).

ENG 430 Pacific Islands Literature (3) 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. Pre: C or better in ENG 100, ENG 100T, ESL 100, or ESL 100T and a 200-level literature course, or instructor's consent. (Attributes: GAHP, HPP)

ENG 431 Fiction Writing (3) Advanced study and writing seminar in fiction. Students may repeat for credit (maximum 6 credits). Pre: C or better in ENG 100/100T or ESL 100/100T, 3 credits from ENG 200A-F, and 3 credits from ENG 286A/286B or instructor's consent.

ENG 432 Non-Fiction Writing (3) Advanced study and writing seminar in non-fiction. Students may repeat for credit (maximum 6 credits). Pre: C or better in ENG 100/100T or ESL 100/100T, 3 credits from ENG 200A-F, and 3 credits from ENG 286A/286B or instructor's consent.

ENG 433 Poetry Writing (3) Advanced study and writing seminar in poetry. Repeatable one time for a maximum of 6 credits. Pre: C or better in ENG 100/100T or ESL 100/100T, 3 credits from ENG 200A-F, and 3



credits from ENG 286A/286B or instructor's consent.

ENG 434 Portfolio Seminar (3) Creative Writing Certificate capstone class. Students will work with a small cadre of other creative writing students and a faculty mentor to compile a polished collection of creative work in their chosen genre (or combination of genres): fiction, poetry, playwrighting, or creative nonfiction. Applied learning will focus on revision, editing, finding an appropriate audience and publishing opportunities for each writer's work, design and graphics for printed collections, planning and carrying out a teaching practicum, and will culminate in a public reading and presentation of each student's chapbook. Pre: Instructor approval

ENG 442 Romantic Literature (3) Poetry and prose from 1780 to 1832. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 422).

ENG 445 Victorian Literature (3) Poetry and prose from 1832 to 1900. Pre: C or better in ENG 300 or instructor's consent.

ENG 448 Graphic Novels and Comics (3) Advanced study of major developments, schools and styles in contemporary graphic novels and comics. Emphasis on literary theory and analysis. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 448).

ENG 461 Shakespeare (3) Selected histories, comedies, and tragedies not studied in ENG 462. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T and a 200-level literature course, or instructor's consent.

ENG 464 Modern Literature (3) British and American literature from 1900 to WWII with emphasis on the development of Literary Modernism. Pre: C or better in ENG 300 or instructor's consent.

ENG 465 Post-Modern Literature (3) A study of literature (including theoretical essays, plays, film, and poetry) following WWII. The course will address contemporary responses to and against the Modernist Period and may cover movements such as Literature/Theatre of the Absurd, Magical Realism, the San Francisco Renaissance, the Black Mountain Poets, and the Angry Young Men's Movement. Pre: C or better in ENG 300 or instructor's consent.

ENG 466 The Contemporary Fairy Tale (3) A study of a representative range of contemporary fairy tales in English, which incorporates current theories and analytical approaches to literary fairy tales and the politics of interpretation. Pre: C or better in ENG 300 or instructor's consent.

ENG 469 Advanced Topics in Film (3) A course that analyzes advanced theoretical approaches to film and/or stage. The course may explore themes, such as film noir or 3rd Cinema. The course may be repeated, provided that different topics are studied. Pre: C or better in ENG 300 or instructor's consent.

ENG 475 Topics in Literary Criticism (3) Advanced analyses of literature via specific schools of theoretical criticism, such as Psychoanalysis, Deconstruction, Marxism and New Criticism. The course may be repeated for credit, provided that a different topic is chosen. Pre: C or better in ENG 300 or instructor's consent.

ENG 480 Women and Rhetoric (3) Survey of key female figures that have figured (or not figured) into the rhetorical canon. Analysis of women's use of rhetoric in everyday life and at historic moments and consideration of methodological and theoretical issues intersecting women, rhetoric and historical research. Pre: C or better in ENG 300 or instructor's consent. (Same as WS 480).

ENG 482 Teaching Composition (3) Overview of current theory and research informing contemporary English composition instruction at elementary, secondary, and college levels with methods for application to teaching or writing at any level or within any discipline. Pre: C or better in ENG 300 or instructor's consent.

ENG 483 Modern/Contemporary Drama (3) A study of works which have established or refined major traditions in modern theater, with some reading in critical theory. Pre: C or better in ENG 100, ENG 100T or ESL 100, ESL 100T and 200-level coursework in literature. (Same as DRAM 483).

ENG 484 ESL Materials & Methods (3) Overview of current theory and practice in the teaching of English as a Second Language. In addition to studying and evaluating various theoretical approaches to ESL teaching and second-language learning, students will gain experience developing and using their own teaching materials. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T and ENG/LING 350, or instructor's consent.

ENG 488A Single Author Pre-1700 (3) A semester long consideration of the literary output of a single author selected by the instructor. May be repeated for credit provided that a different topic is studied. Credit may be earned in each different period A) Pre-1700; B) Post-1700. Pre: C or better in ENG 300 or instructor's consent.

ENG 488B Single Author Post-1700 (3) A semester-long consideration of the literary output of a single author selected by the instructor. May be repeated for credit provided that a different topic is studied. Credit may be earned in each different period: (A) Pre-1700; (B) Post-1700. Pre: C or better in ENG 300 or instructor's consent.

ENG 489 Major Literary Movements (3) Advanced senior-level studies of schools and movements not covered by the Department's current British Literature offerings or by ENG 419. Possible topics include Realism and Naturalism, the Bengali Renaissance, Avant-Garde and the Era of the Decadents, the Celtic Revival, and Magic Realism. The course may be repeated, provided that different topics are studied. Pre: C or better in ENG 300 or instructor's consent.

ENG 492 Teaching Literature (3) A course that covers the praxis of teaching literature as well as the theory surrounding literary studies. Students will learn to create creative and analytical exercises and critically evaluate and utilize a wide range of resources for the teaching of poetry and prose at the secondary and post-secondary level. Pre: C or better in ENG 300 or instructor's consent.

ENG x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ENG x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

English as a Second Language (ESL) Courses

English Language Institute (ELI), College of Continuing Education and Community Service (CCECS)

ELI courses, while carrying administrative credit, do not count toward



graduation from UH Hilo. All courses listed below are ELI courses, except *ESL 100 Composition/Nonnative Speakers (3)* and *ESL 100T Composition/Non-nativeTutorial (3)*. For tuition and immigration purposes, the courses count as three semester credit hours each.

ESL 061 Listening & Speaking, Int (4) This course is designed for non-native English speakers to gain practice in listening comprehension, conversational skills, discussion skills, and understanding cultural differences. This course does not count towards graduation from UHH. Entry requirement: ESL 061 placement on the English Language Placement Assessment.

ESL 062 English Grammar, Intermediate (3) This course is designed for non-native English speakers to provide them with practice of the rules of noun and verb forms, connecting words and other forms as they are used in English writing and speaking. This course does not count towards graduation from UHH. Entry requirement: ESL 062 placement in the English Language Placement Assessment.

ESL 063 Academic Reading, Intermediate (4) This course is designed for non-native English speakers to prepare them for college-level academic reading with work in vocabulary, understanding complex sentence structures, reading strategies, and writing in relation to reading. This course does not count towards graduation from UHH. Entry requirement: ESL 063 placement on the English Language Placement Assessment.

ESL 064 Academic Writing, Intermediate (4) This course is designed for non-native English speakers to prepare them for academic writing with work in sentence structure and the development of paragraph skills in a range of rhetorical styles. This course does not count towards graduation from UHH. Entry requirement: ESL 064 placement on the Writing Placement Assessment.

ESL 071 Listening & Speaking, High Int Designed for non-native English speakers to improve listening comprehension, thinking, and communicating ideas in English. Native-speaker lectures and speech practice accelerate the learning skills needed for college work. Focus is on taking effective and well-organized notes on high-intermediate level lectures, participating in discussions and giving both formal and informal presentations. This course does not count towards graduation from UHH. Entry requirement: ESL 071 placement on the English Language Placement Assessment or successful completion of ESL 061.

ESL 072 English Grammar, High Int (3) Designed for non-native English speakers to develop their grammatical accuracy in writing and speaking. Focus is on verb tenses, subject/verb agreement, passive voice, connectives; adjective, noun and adverb clauses; gerunds and infinitives, prepositions and using the conditional. This course does not count towards graduation at UHH. Entry requirement: ESL 072 placement on the English Language Placement Assessment or successful completion of ESL 062.

ESL 073 Academic Reading, High Int (4) Designed for non-native English speakers to build and strengthen academic reading skills. Focus is on building vocabulary, previewing and predicting, skimming and scanning, finding main ideas and details, annotating, articulating stated and inferred ideas, distinguishing between fact and opinion, summarizing and responding thoughtfully to academic texts. This course does not count towards graduation from UHH. Entry requirement: ESL 073 placement on the English Language Placement Assessment or successful completion of ESL 063.

ESL 074 Academic Writing, High Int (4) Introduction and practice in

writing coherent, well-organized, well-developed paragraphs and multi-paragraph essays in a variety of rhetorical styles. This course does not count towards graduation from UHH. Entry requirement: ESL 074 placement on the Writing Placement Assessment or successful completion of ESL 064.

ESL 081 Listening & Speaking, Advanced (4) Designed for non-native English speakers to practice authentic listening comprehension and notetaking, use the information for discussions and debate, and give well-organized and clearly expressed formal and informal presentations, thinking, and communicating ideas in English requisite for college study. Authentic lectures and formal speech practice expose students to the language used and required in academic coursework. This course does not count towards graduation from UHH. Entry Requirement: ESL 081 placement on the English Language Placement Assessment or successful completion of ESL 071.

ESL 082 English Grammar, Advanced (3) (lecture/lab) Designed for non-native English speakers, this is an overview overview and practice of advanced grammatical structures that are used in university-level speaking and writing. Emphasis is on identifying grammar problems and developing editing skills for academic writing. This course does not count towards graduation from UHH. Entry Requirements: ESL 082 placement on the English Language Placement Assessment or successful completion of ESL 072.

ESL 083 Academic Reading, Advanced (4) Designed for non-native English speakers to develop an effective reading approach to university-level texts as well as the critical reading skills necessary to comprehend, analyze, conduct research, summarize, synthesize and respond thoughtfully in both writing and speaking to authentic texts. Emphasis on vocabulary development, finding main ideas and specific details, and drawing inferences. This course does not count towards graduation from UHH. Entry requirement: ESL 083 placement on the English Language Placement Assessment or successful completion of ESL 073.

ESL 084 Academic Writing, Advanced (4) Designed for non-native English speakers to practice writing expository essays, with an emphasis on the development of critical thinking skills, organization and support in argumentation. Attention is given to various stages of the writing process: generating ideas, drafting, peer review, and revision. Special emphasis and on identifying and editing of grammatical errors. This course does not count towards graduation from UHH. Entry requirement: ESL 084 placement on the Writing Placement Assessment or successful completion of ESL 074.

ESL 085 American English Pronunciation (2) (other) Designed for non-native speakers to improve their Standard American English (SAE) pronunciation. Emphasis is on making speech intelligible. Students will focus on vowel and consonant sounds, word-, phrase-, and sentence-stress, intonation, and rhythm. During class, students will practice differentiating speech sounds in both listening and production. Outside of class, student will use technology to practice. This course does not count towards graduation from UHH. No Prerequisites. Repeatable once for credit.

ESL 086 American Culture & Community (2) This multi-level course for non-native English speakers explores American culture through hands-on learning about topics such as treatment of the elderly, the environment, people with disabilities, addiction, homelessness, education, immigration and the treatment of animals. Topics will change each semester and a culminating project designed by students completes the course. Transportation to each on-site activity will be provided. This course does not count towards graduation from UHH. CR/NC. Repeatable one time for credit. No prerequisites.



ESL 087 American Culture through Film (2) Please contact the department or division office for more information about this course.

ESL 100 Composition/Nonnative Speakers (3) Instruction in writing clear, effective university-level essays and research paper. Attention to all stages of the process: generating ideas, drafting, revising, and editing. Entry requirements: ESL 100 recommendation on the Writing Placement Examination and completion, exit by test, or concurrent enrollment in ESL 083. Once enrolled concurrently in ESL 100, a student may not drop the required ESL 083 class without dropping ESL 100 as well.

ESL 100T Composition/Non-native Tutorial (3) Instruction and practice in writing clear, effective university-level essays and research paper. Fulfills expository writing (ENG 100) requirement for non-native speakers of English only. Entry requirements: ESL 100T recommendation on Writing Placement Exam and completion, exit by test, or concurrent enrollment in ESL 083. Once enrolled concurrently in ESL 100T, a student may not drop the required ESL 083 class without dropping ESL 100T as well.

ESL x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ESL x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Entomology (ENTO) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

ENTO 262 Intro Beekeeping (3) (lecture/lab) Biology, behavior, and management of honeybees for honey production. Limited enrollment. Pre: instructor's consent. (Attributes: ALEX, GCC)

ENTO 304 General Entomology (3) Structure, classification and identification of insects. Pre: BIOL 171 or 172 or instructor's consent. (Same as BIOL 205)

ENTO 350 Advanced Beekeeping (3) (lecture/lab) 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. Limited enrollment. Repeatable once for a maximum of 6 credits. Pre: ENTO 262 or instructor's consent.

ENTO 374 Insect Pest Control (3) (lecture/lab) Destructive and beneficial insects; principles of cultural, mechanical, legislative, biological, and chemical control. Pre: ENTO 304 or instructor's consent.

ENTO x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ENTO x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Environmental Studies/Science (ENSC) Courses

College of Arts and Sciences (CAS)

ENSC 100 Intro to Environmental Science (3) Introductory course linking the human and physical/ chemical/biological world. Emphasis on current global and local issues related to pollution, biodiversity, ecosystem services, climate change, resource consumption and sustainability. Focus on critical thinking and the integration of both natural and social science perspectives in understanding and addressing environmental issues.

ENSC 301 Global Warming/Climate Change (3) Concepts and processes of global warming and climate change: electromagnetic radiation and energy balance, greenhouse effects, past climates, and local and global impacts and mitigation strategies. We will read and analyze classic and current journal articles and gain experience working with simple climate models. Pre: ENSC 100 or GEOG 101. (Same as GEOG 301)

ENSC 330 Peoples, Plants, and Culture (4) (lecture/lab) Ethnobotany, the study of the relationships between humans and plants, and archaeobotany, the study of past plant use, is considered from an anthropological perspective. The focus is on how plants fundamentally shape the human condition, how plants are integral to the structure of culture and society, and the important roles plants play in shaping and directing cultural change. (Same as ANTH 330, AG 330)

ENSC 384 Primatology (3) 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 215, or BIOL 172. (Same as ANTH, BIOL 384)

ENSC 385 Field Meth in Geog & Environ Sci (3) Geographic field methods for assessment and monitoring the physical/biological/anthropogenic environment. Instrumentation, data collection, and analysis; planning and land management applications. Pre: Junior or senior status and consent of instructor. (Same as GEOG 385) (Attributes: GAHP)

ENSC 436 Environ Politics in Pacific (3) This course will examine the ways that government policies, economic development and globalization affect the environment in the Pacific region as well as the ways that environmental problems affect political debates and actions. Utilizing the research approach of political ecology this course for advanced students will explore contemporary viewpoints on climate change, environmental preservation, population growth, land degradation, marine and terrestrial resource management, environmental contamination, and other environmental issues across Polynesia, Melanesia and Micronesia. Pre: Junior or Senior standing and completion of one of the following: ENSC 100, GEOG 335, other upper-level Pacific Islands Studies course, or instructor's (Same as GEOG 436) (Attributes: GAHP)

ENSC 441 Environmental Impact Assessment (3) Introduction to the theory and methods of environmental impact assessment (EIA). Emphasis on the biophysical, cultural, social, economic and legal foundations of the federal and state EIA process as well as strategies to mitigate the negative environmental impacts of development. Students engage in critical evaluation and preparation of an EIA. Pre: junior or senior standing or consent of instructor. (Same as GEOG 441).



ENSC 457 Vegetation of the Hawaiian Isl (3) This course explores the major types of vegetation in Hawai'i with respect to physical environments and important species. Basic concepts in taxonomy and identification are emphasized. Coursework includes field excursions at various sites around the island of Hawai'i to develop methods in surveying and monitoring vegetation. This course also examines major human impacts and conservation challenges. Pre: BIOL 156 or BIOL 281. (Same as BIOL 457)

ENSC 495 Senior Seminar Environ Science (3) Capstone course for Environmental Studies/Science majors integrating previous coursework into disciplinary framework. Seminar focus on research, writing and discussion of themes in contemporary environmental problems. Pre: Senior standing ENSC or ENVS or GEOG major or consent of instructor. (Same as GEOG 495).

ENSC x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ENSC x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Filipino (FIL) Courses

College of Arts and Sciences (CAS), Languages

FIL 101 Elementary Filipino I (4) (lecture/lab) This course involves an introduction to the Filipino language as a tool for communication in simple social situations. Emphases are on developing the four language skills: Speaking, Listening, Reading and Writing. However, the course will focus on Speaking and Listening skills as foundation in the beginner's program. The course will pay close attention to the sounds of the Filipino language, including intonation and stress, as well as vocabulary and simple grammatical structures. The course will present different social situations, which involves the turntaking skills, courtesies, and initiating and ending a communication exchange. (Attributes: GAHP, HPP)

FIL 102 Elementary Filipino II (4) This is a continuation of FIL 101. Emphases are on developing the four language skills: Speaking, Listening, Reading, and Writing. The course will focus on speaking and listening as foundational skills. The course will pay close attention to the sounds of the Filipino (Tagalog) language, including intonation and stress, as well as vocabulary and grammatical structures of the elementary level. The course will present different social situations, which involve turntaking skills, courtesies, and initiating and ending a communication exchange. Pre: FIL 101. (Attributes: GAHP, HPP)

FIL 200 Inter Conversational Filipino (3) Students will be given an introduction to Tagalog, one of the most widely used and understood languages in the Philippines and overseas Filipino communities. Attention will be given to developing language skills in four areas: Speaking, Listening, Reading and Writing. However, this course will focus on speaking and listening skills to establish a foundation at an intermediate level. Students will learn how to apply the skills learned in common social situations through various hands-on activities. Reading material and other sources will be utilized to supplement course learning. Pre or Coreq: FIL 102 or instructor's consent. (Attributes: HPP)

FIL 330 Filipino Films (3) This is a survey course on Philippine cinema

presented in in Filipino with English subtitles. In this course students will be taught how to watch and listen to films; then identify and analyze various issues within Philippine socio-political contexts. Through lectures, discussions, and various classroom activities, students will develop critical thinking skills necessary for investigating ethical issues in Philippine films. (Attributes: ALEX, GAHP, GCC, HPP)

FIL 333 Filipinos in Hawaii (3) This upper-division and interdisciplinary course will provide an overview of the historical and contemporary experiences of Filipinos in Hawaii, focusing primarily on issues related to race, ethnicity, migration, gender, culture, power, representation, and globalization. (Attributes: HPP)

FIL 354 Filipino Culture (3) This course is an introduction to peoples and cultures of the Philippines. Topics include cultural origins, linguistic and cultural diversity, values, social structure and overseas Filipino adaptation. This course is cross-listed with ANTH 354. (Attributes: ALEX, GCC, HPP)

FIL x94 Special Topics in Subject Matter (Arr.) (IO) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

FIL x99 Directed Studies (Arr.) (IO) Statement of planned reading or research required. Pre: instructor's consent.

Finance (FIN) Courses

College of Business and Economics (COBE)

FIN 220 Personal Finance (3) 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.

FIN 320 Prin Bus Finance (3) Introduction to concepts and techniques of business finance. Topics include organizational forms, agency relationships, financial analysis and planning, the capital formation process and capital markets, risk and return, time value of money, stock and bond valuation, and capital budgeting. Pre: Admission to Professional Business Program, C or better in ACC 201, C or better in MATH 135 (may be taken concurrently) 125, 205 or higher, and BUS 290 (may be taken concurrently).

FIN 321 Invest & Secur Analysis (3) 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: Admission to Professional Business Program, FIN 320 and junior standing.

FIN 322 Corporate Finance (3) Development of tools to help managers analyze and solve financial problems. Topics include capital budgeting, capital structure, dividend policy, lease financing, short and long term asset and liability management, options and futures contracts, merger/take-over analysis and bankruptcy analysis. Pre: Admission to Professional Business Program, FIN 320, ACC 202



FIN 325 Small Bus Finance (3) 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: Admission to Professional Business Program, FIN 320 and junior standing.

FIN 370 Prin Real Estate (3) 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: Admission to Professional Business Program, FIN 320 and junior standing.

FIN 412 Options & Other Derivatives (3) Detailed coverage of derivative securities including options, swaps, forwards and futures. Pricing, arbitrage relationships, use and trading strategies of derivatives are discussed. Contemporary issues in financial engineering. Special emphasis is placed on the use of derivatives by smaller businesses. Pre: Admission to Professional Business Program and FIN 320.

FIN x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

FIN x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Forestry (FOR) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

FOR 202 Forestry & Natural Resources (3) (lecture/lab) Development of forestry and agroforestry, forest biology, soils, ecology, conservation, management, and products. Field trips to various forestry operations.

FOR 340 Remote Sensing GIS in Forestry (3) Application of remote sensing and GIS in forestry. Spatial data structures, map projection, global positioning system. How to create spatial data sets through GPS survey. Utilization of GIS software and performance of basic spatial analyses.

FOR 350 Tropical Silviculture (3) (lecture/lab) Sustainable methods and techniques for manipulation of tropical forest ecosystems to meet management objective; artificial and natural regeneration; site preparation and harvest methods; soil and water resources management; silviculture and the gene pool; intermediate stand tending and maintenance of forest health.

FOR 360 Urban Forestry (3) Conservation, management and restoration of trees, forests and related natural resources are core topics including the evolution of today's public and private urban forestry programs. Primary focus is urban forestry from ecological, economic, socio-cultural and economic perspectives. Changing demographics of urban areas, urban development and sprawl, resultant impacts and the political landscape are also topics. Sustaining urban forest systems through understanding or organization, structure, function and processes in a stressed environment are emphasized.

FOR 440 Forest Ecosyst Restoration/Mgt (3) (lecture/lab) The course gives the students an introduction to basic knowledge on the interdependent disciplines, restoration ecology and ecological restoration, with specific emphasis on forests. Planning and restoration strategies for natural systems in the tropical regions; assessing the condition and threats to native and planted forests and developing plans for their management; introducing tools used by restoration ecologists to solve practical problems; discussing scope and success of actual restoration projects.

FOR x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

FOR x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

French (FR) Courses

College of Arts and Sciences (CAS), Languages

FR 101 Elementary French I (4) Conversation, laboratory drill, grammar, reading, using film strips, interactive software, slides and tapes.

FR 102 Elementary French II (4) Conversation, laboratory drill, grammar, reading, using film strips, interactive software, slides and tapes. Pre: FR 101 or equivalent.

FR 201 Intermediate French I (4) Reading, conversation, laboratory drill, composition, using film strips, interactive software, slides and tapes. Pre: FR 102 or equivalent.

FR 202 Intermediate French II (4) Reading, conversation, laboratory drill, composition, using film strips, interactive software, slides and tapes. Pre: FR 201 or equivalent.

FR 312 Adv Conver & Composition (3) 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, interactive software, and film strips also will be used. Pre: FR 311 or equivalent.

FR x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

FR x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Geography (GEOG) Courses

College of Arts and Sciences (CAS)

Field trips are sometimes conducted outside of class hours.



GEOG 101 Geog & Nat Environ (3) Survey of the earth's physical environment, including distribution and associations between energy, climate, vegetation, and landforms. Human interrelationships with the physical landscape.

GEOG 102 World Regional Geography (3) 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.

GEOG 103 Geog And Contemp Soc (3) Examines aspects of culture such as population, agriculture, industry, and religion. Focus on the relationships between people and their environment and resulting regional contrasts.

GEOG 105 Geography Of United States (3) Major features of the United States. Emphasis on what gives character or distinctiveness to various places.

GEOG 107 Hawaii in the Pacific (3) (lecture/other) Introduction to the geographies of Hawai'i and the Pacific Islands region, emphasizing indigenous world views. Through lecture, discussion, and web based learning, the course focuses on the historical and contemporary links between Hawai'i and Oceania and provides a context for understanding the people, cultures, and environments of the region. (Attributes: GAHP, HPP)

GEOG 120 Weather & Climate Hawaii (3) 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) (Attributes: ALEX, GAHP, GCC, HPP)

GEOG 201 Interp Geog Data (3) Introduction to methods of analysis and display of a variety of geographical data. Introduction to geographical methods, basic computer programs, concepts of computer cartography, map interpretation and design, and more advanced techniques including GIS, GPS, and remote sensing.

GEOG 280 Introduction to Geostatistics (3) Application of statistical and mathematical models in a geographic context. The use of multivariate techniques in assessing spatial relationships. This course will cover basic theory, methods, and techniques for the statistical analysis of spatial data. Students will learn and employ elementary techniques for describing, modeling, and analyzing spatial data using Excel, ArcGIS, and/or MATLAB. Pre: GEOG 102 or GEOG 103 or GEOG 101 or ENSC 100.

GEOG 295 Pacific: Brown Bag Seminar Ser (1) (other) Weekly one hour seminars will cover a broad range of topics, current research and topical issues that are of relevance to contemporary ways of life in the Pacific. Seminars will also explore the application of Pacific Studies to the workforce. Credit is gained by weekly attendance and the submission of short summaries of the weekly seminars. (Same as ANTH 295).

GEOG 300 Climatology (3) 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.

GEOG 301 Global Warming/Climate Change (3) Concepts and processes of global warming and climate change: electromagnetic radiation and energy balance, greenhouse effect, past climates, and local and global impacts and migration strategies. We will read and analyze

classic and current journal articles and gain experience working with simple climate models. Pre: ENSC 100 or GEOG 101. (Same as ENSC 301).

GEOG 305A Themes in Regnl Geog: Asia (3) Surveys regional landscapes of East, Southeast, and South Asia; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: junior or senior status, or consent of instructor.

GEOG 305B Themes in Regnl Geog: Mid East (3) Surveys regional landscapes of the Middle East, including North Africa; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: junior or senior status, or consent of instructor.

GEOG 305C Themes in Regnl Geog: N Amer (3) Surveys regional landscapes of North America; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: junior or senior status, or consent of instructor.

GEOG 309 Biogeography (3) Basic evolutionary and ecological principles underlying the dynamics of plant and animal population. 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 175 or 176; or consent of instructor. (Same as BIOL 309) (Attributes: GAHP)

GEOG 312 Food and Societies (3) Different types of food production and consumption systems, and the cultural and environmental constraints operating to produce the resultant patterns. Globalization of agricultural production and consumption. Pre: one introductory geography course. (Same as AG 312) (Attributes: ALEX, GCC)

GEOG 319 Nat Hazards/Disasters (3) 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.

GEOG 320 Earth Surface Processes (3) Processes of landform development at large and small scales. Theoretical and applied aspects, including human environment considerations. Field excursions may be required. Pre: GEOG 101 or GEOL 111 or equivalent. (Same as GEOL 342)

GEOG 321 Geog Of Economic Activity (3) 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. Pre: GEOG 103.

GEOG 325 Legal Geography (3) In this course, we will explore and examine a variety of places that upon first consideration, do not seem either legal or political. We will investigate a variety of types of places and spaces that carry legal and political weight in our everyday lives. Themes of consumption, expression, access, accommodation, culture, sex, race, living, national identity, community, discipline, and property will guide our inquiry into the relationship between law, politics, and spatial habitation. (Same as POLS 325). (Attributes: ALEX, GCC)

GEOG 326 Natural Resources (3) 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 instructor's consent. (Attributes: GAHP)

GEOG 328 Cultural Geography (3) Key concepts in cultural geography



and introduction to qualitative research methods in geography. Topics include: histories of cultural geography; landscapes; nature-society relations; critical cultural geographies. Pre: one introductory geography course.

GEOG 329 Development Geographies (3) Major theoretical approaches to economic development will be examined. The environmental and cultural sustainability of these approaches along with emerging alternative development (green) perspectives will be highlighted through specific case studies. Pre: any introductory course in geography, anthropology, economics, biology, or agriculture.

GEOG 331 Tourism Geographies (3) Survey of tourism geographies, addressing a wide-range of topics: tourism representations, tourism development strategies, indigenous tourism development, planning for "sustainable" tourism, and tourism's environmental impacts. Pre: junior or senior standing or instructor's consent.

GEOG 332 Geog Of Hawaiian Islands (3) 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. (Attributes: GAHP)

GEOG 335 Geog Of Oceania (3) 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 political geography; economic development, and resource management and environmental issues. (Attributes: GAHP, HPP)

GEOG 340 Intro to Land Use Planning (3) Land use planning and relationship of geographic concepts to urban, regional, and environmental planning. Emphasis on examples from Hawai'i. Pre: Junior or senior standing.

GEOG 382 Qualitative Research (3) Introduction to the ethics, methodologies, and practice of research in human geography, particularly standpoint epistemologies and associated methodologies. Combines lectures, workshops, and assignments. Students will conduct and report upon their own research. Pre: GEOG 103 or 102 or WS 151 or instructor's consent. (Same as WS 382)

GEOG 385 Fld Meth in Geog & Environ Sci (3) Geographic field methods for assessment and monitoring of the physical/biological/anthropogenic environment. Instrumentation, data collection, and analysis; planning and land management applications. Pre: GEOG 201 or instructor's consent. (Same as ENSC 385). (Attributes: GAHP)

GEOG 387 Lit Of The Environment (3) A study of modern nature writing and environmental issues in several genres. Students will explore how humans negotiate their place in variety of physical environments. Pre: ENG 100 and one of the following: ENG 200, 251, 252, 253, or 254 or consent of instructor. (Same as ENG 387)

GEOG 409 Principles of Landscape Ecology (3) Introduction to landscape ecology as a framework for landscape research, analysis and management. Emphasis on spatial patterning - the causes, development, importance of ecological processes, and the spatial interactions of dynamic processes. Focus on concepts, methods and applications of landscape ecology through reading classic and contemporary literature. Pre: GEOG 101 or GEOG 201 or GEOG 309 or BIOL 281 or consent of instructor. Some familiarity with geographic information systems (GIS)

and statistics desirable.

GEOG 430 Gender, Place and Environment (3) Survey of trends in geography of gender related to place, space and the environment. Addresses spatial interactions of gendered bodies of different ages, class and ethnicities. Pre: junior or senior standing or instructor's consent. (Same as WS 430). (Attributes: ALEX, GCC)

GEOG 435 Senior Seminar Pacific Studies (3) (other) A reading and research seminar under the supervision of faculty from Anthropology, Geography, and/or History on indigenous issues in contemporary Oceania. Topics include indigeneity, sovereignty, climate change and sea-level rise, militarism, and ethnic tensions and violence. Pre: Junior or Senior standing. (Same as ANTH 435, HIST 415) (Attributes: GAHP)

GEOG 436 Environ Politics in Pacific (3) This course will examine the ways that government policies, economic development and globalization affect the environment in the Pacific region as well as the ways that environmental problems affect political debates and actions. Utilizing the research approach or political ecology this course for advanced students will explore contemporary viewpoints on terrestrial resource management, preservation, population growth, land degradation, marine and terrestrial resource management, environmental contamination, and other environmental issues across Polynesia, Melanesia and Micronesia. Pre: Junior or Senior standing and completion of one of the following: ENSC 100, GEOG 335, other upper-level Pacific Island Studies course, or instructor's consent. (Same as ENSC 436) (Attributes: GAHP)

GEOG 440 Community Planning (3) An introduction to comprehensive planning in Hawai'i with emphasis on the environmental, infrastructure, social, economic and other issues underlying good land use plans. Examples from General Plans and Community Development Plans. Pre: GEOG 340 or instructor's consent.

GEOG 441 Environmentl Impact Assessment (3) Introduction to the theory and methods of environmental impact assessment (EIA). Emphasis on the physical environmental, cultural, social and legal foundations of the federal and state EIA process as well as how to minimize negative impacts on economic development. Students engage in critical evaluation and preparation of EIS. Pre: junior or senior standing or consent of instructor. (Same as ENSC 441).

GEOG 470 Remote Sensing/Air Photo (3) 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.

GEOG 480 Geog Info Sys & Visualization (3) (lecture/lab) Introduction to basic concepts and skills for using Geographic Information Systems (GIS) to analyze and visualize geospatial data. Topics covered include: computer representation of geographic information, construction of GIS databases, geospatial analysis and applications. Additional focus on visualization skills including cartographic principles and techniques. Pre: GEOG 201 or instructor's consent.

GEOG 481 Advance Geo-Spatial Techniques (3) GEOG 481 is an advanced course in spatial analysis and modeling specific to Geospatial Information Science. This course will emphasize the application of Geospatial software tools along with the underlying theories and practices to analyze, model and visualize data. A focus on concepts and techniques utilized in GIS provides numerous opportunities for applied learning in terrain modeling, suitability modeling, predictive ecosystem mapping and data visualization. Further knowledge and skills will be developed by customization of GIS applications through interface. This



course is dual listed with CBES 681.

GEOG 488 Advanced Geostatistics (3) This class is about understanding the uncertainty inherent in predictions made from spatial data. Probability theory, spatial analysis, variogram analysis, kriging, and stochastic simulations (conditional and unconditional). Our focus will be on the theory and application of geostatistical interpolation techniques to address real geographic and environmental problems using real data. Pre: GEOG 280, GEOG 480

GEOG 490 Senior Thesis (3) (lecture/other) Independent research on a significant topic related to the student's area of interest under the supervision of one or more faculty members in Geography and Environmental Science/Studies. Pre: Instructor's consent.

GEOG 495 Senior Seminar in Geography (3) (other) Capstone course for Geography, Environmental Studies and Environmental Science majors, integrating previous course-work into disciplinary framework. Seminar focuses on research, writing and discussion of themes in contemporary geography and environmental studies and science. Each student will choose a sub-field of interest and prepare two seminar papers: (1) survey of historical development of sub-field including theoretical and cutting edge issues; (2) identify and investigate an original research problem in the chosen sub-field. Pre: Major in Geography, Environmental Studies or Environmental Science, junior or senior standing. Offered spring semester only. (Same as ENSC 495).

GEOG 496 Planning Internship (3) (other) Juniors and seniors majoring in geography may undertake in-service training in government or private agencies. Pre: junior standing and consent of instructor. (Attributes: ALEX, GAHP)

GEOG x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

GEOG x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Geology (GEOL) Courses

College of Arts and Sciences (CAS)

Field trips are sometimes conducted outside of class hours.

GEOL 100 Environmental Earth Science (3) Introduction to geology for non-science majors with an emphasis on the interaction between the Earth and its human population. The focus is on the solid Earth, natural hazards, natural resources, and pollution. Note: Geology students with an interest in environmental geology are encouraged to take GEOL 300. (Attributes: ALEX, GCC)

GEOL 100L Environmental Earth Sci Lab (1) (lab) Application of basic geological principles toward the understanding of man's relationship with the environment. Laboratory experiences in hazards mapping and assessment, environmental pollution, global change, and management of our geological resources. Develops skills in interpreting maps and remote sensing images. Pre: GEOL 100 or GEOL 300, which may be taken concurrently.

GEOL 111 Understanding the Earth (3) The study of the Earth, with emphasis placed on the materials, surface features, structures, various erosional and depositional processes, and the role of plate tectonics. Prepares students for further studies in geology.

GEOL 111L Understanding the Earth Lab (1) (lab) Investigation of geological processes using observational techniques. Covers plate tectonics, identification and classification of earth materials, analysis of geological hazards, evaluation of natural resources, and development of map interpretation skills. Field trips highlighting Hawaiian geology. Pre: Concurrent or previous enrollment in either GEOL 100 or GEOL 111, or instructor's consent.

GEOL 112 Hist of the Earth & Its Life (3) The evolution of the earth from the origin of the solar system to the present. Emphasis on plate tectonics, the history of life, and techniques used to reconstruct past events from geologic evidence. Pre: GEOL 111 or consent.

GEOL 112L History of the Earth Lab (1) (lab) Includes topics on fossils and fossilization, measurement of geologic time, stratigraphy, biostratigraphy, geotectonics, paleoecology, sedimentology, and the interpretation of geologic maps. Recommended: GEOL 111L. Pre: GEOL 112, which may be taken concurrently.

GEOL 170 Volcanoes and Earthquakes (3) Systematic study of volcanic eruptions and damaging earthquakes. Applications of the scientific method to understanding their underlying causes. Case studies illustrate how catastrophic eruptions and earthquakes impact climate, the environment and society.

GEOL 195 Introductory Field Experience (1) (other) Pre- or post-semester field trip (1-2 weeks) to exceptional geologic localities. During the semester students will become familiar with the geologic formations, structure, and history of the area to be visited. Pre: prior course in geology. CR/NC grade. Repeatable for credit. Offered in Spring semester only, alternate years.

GEOL 205 Geology Of Hawaiian Islands (3) A survey of the geological phenomena particular to the Hawaiian Islands, including volcanism, rock and mineral occurrences, landform development, and water resources. (Attributes: GAHP, HPP)

GEOL 212 Earth Materials I: Minerals (4) (lecture/lab) A systematic study of the common minerals involving crystallography, optical properties, crystal chemistry, and occurrence. Laboratory work stresses identification of minerals in hand specimen and using the petrographic microscope. Pre: GEOL 111 and either CHEM 151 or 161, or instructor's consent.

GEOL 300 Adv Environmental Earth Sci (3) In-depth study of the interactions between the human population and our planet. Natural resources, pollution and natural hazards, current issues such as the food supply and the energy crisis. Community concerns such as waste, natural hazards and environmental legislation. Pre: upper division standing and GEOL 100 or GEOL 111 or GEOL 170 or GEOG 101 or ENSC 100 or MARE 201. (Attributes: ALEX, GCC)

GEOL 320 Earth Mat II: Igneous/Meta Rock (4) (lecture/lab) 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. Emphasis on igneous and metamorphic rocks. Pre: GEOL 212 or consent of instructor.

GEOL 330 Deformation of the Earth (4) (lecture/lab) 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.

GEOL 340 Sedimentary Processes (4) (lecture/lab) Emphasis on sedimentary processes, properties of sediments and sedimentary rocks, environmental interpretation, and stratigraphic principles and nomenclature. Required field trips. Pre: GEOL 112

GEOL 342 Earth Surface Processes (3) 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)

GEOL 344 Coastal Geology (3) Systematic study of coastal processes and the structure and morphology of the world's coastlines. Topics include tectonic, oceanographic, biologic and anthropogenic influences, hazards, and current issues. Required weekend field trips. Pre: GEOL 111 or MARE 201 or GEOG 101 or instructor's consent.

GEOL 352 Comparative Planetology (3) Planets and Exoplanets (3) 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 and applications to exoplanet research. Study of the atmospheres of Solar System planets and satellites, and also the formation and evolution of the Solar System and extrasolar planetary systems. Pre: GEOL 111 Understanding the Earth (3), ASTR 180 Princ Of Astron I (3), PHYS 151 College Physics I (3) or PHYS 170 Gen Phys I: Mechanics (4). (Same as ASTR 352 Planets and Exoplanets (3)).

GEOL 360 Surface Water (3) Introduction to surface hydrology. Topics include streamflow hydraulics, flooding, soil moisture, evapotranspiration, and stream water quality. Introduction to measurement technique, quantitative descriptions of hydraulic phenomenon and practical applications. Pre: GEOL 111 and competence in algebra or instructor's consent.

GEOL 370 Field Methods (3) (lecture/lab) Familiarization with field instrumentation and techniques. The study of methods used to collect, graphically represent, and interpret geological field data. For the last third of the class, students choose between a post-semester geological mapping project in California, or a geologic mapping project in Hawai'i. Pre: GEOL 330 or consent of instructor. (Attributes: ALEX, GCC)

GEOL 431 Geology Of North America (3) Survey of the structure, stratigraphy, and tectonic evolution of the North American continent from Precambrian to recent. Pre: GEOL 112 or instructor's consent.

GEOL 432 Plate Tectonics (3) Theory and working principles of plate tectonics. Includes quantitative solutions of plate velocities and rotations on a sphere and reconstructions of past plate movements. Pre: GEOL 111.

GEOL 445 GIS for Geology (3) (lecture/lab) Introduction to the use of Geographical Information Systems for storing, displaying, and analyzing geospatial data. Theories, applications in earth and environmental sciences, databases, and data analysis. Pre: GEOL 111 and upper division standing or consent of instructor. Basic computer skills are strongly recommended.

GEOL 450 Geological Remote Sensing (3) (lecture/lab) Application of remote sensing to volcanic hazards, global change, and geologic mapping. Exploration of both satellite and airborne sensor imagery with

laboratory exercises focused on modern remote sensing visualization tools and interpretation of optical, thermal and thematic data suites. Pre: any lower division geology class.

GEOL 460 Groundwater (3) Introduction to groundwater hydrology. Topics include: aquifer properties, principles of groundwater flow, quantity and quality of groundwater resources, water chemistry, groundwater contamination and the role of groundwater in geologic processes. Quantitative focus. Pre: GEOL 111, 111L, prior course in chemistry at the high school or college level, and MATH 125 or 205 or instructor's consent.

GEOL 470 Volcanology (3) (lecture/lab) In-depth study of volcanic processes, products and phenomena, including the classification of volcanic eruptions, evaluation of volcanic hazards, and an introduction to eruption monitoring. Pre: GEOL 320 or instructor's consent.

GEOL 471 Volcano Monitoring (3) 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 sciences, or consent of the instructor.

GEOL 472 Volcano Seismology & Geodesy (3) Investigation of seismotectonic processes of active volcanoes including sources of earthquakes, volcanic tremor, seismic tomography, and seismic methods for volcanic monitoring. Geodetic Investigations of volcanic processes including both earth and space-based methods, data analysis and modeling. Pre: GEOL 111, 111L and MATH 125 or MATH 205 or consent of instructor. Field trips are sometimes conducted outside of class hours.

GEOL 485 Advanced Field Mapping (1) (other) An elective course consisting of 10-14 days of intensive field mapping in selected regions of the United States. Students construct a finished geologic map, including a cross-section, explanation, and a summary of geologic history. Additional fees apply. Pre: GEOL 330.

GEOL 495A Seminar (1) (other) 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 instructor's consent. (Same as ASTR 495A-495B, PHYS 495A-495B and MATH 495A-495B).

GEOL 495B Seminar (1) (other) 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).

GEOL 496 Tchg Assist & Tutoring Geology (1) Please contact the department or division office for more information about this course.

GEOL x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

GEOL x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.



Hawaiian Language (HAW) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

HAW 100 Hawn Language in Action (2) 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) other. May be repeated for credit if subletters are different. Meets two times weekly. No prerequisites. (Attributes: GAHP)

HAW 101 Elementary Hawaiian I (4) Development of listening, speaking, reading and writing and analytical skills at the elementary level of auxiliary language. Taught within the context of the contemporary culture of the Hawaiian people. (Attributes: GAHP, HPP)

HAW 102 Elem Hawaiian II (4) Continuation of HAW 101. Pre: HAW 101 or placement exam. (Attributes: GAHP, HPP)

HAW 201 Intermediate Hawaiian I (4) Continuation of HAW 102 or 105. A second year study of Hawaiian as an auxiliary language. Pre: HAW 102 or HAW 105 or placement exam. (Attributes: GAHP, HPP)

HAW 202 Inter Hawaiian II (4) Continuation of HAW 201. Pre: HAW 201 or equivalent. (Attributes: GAHP, HPP)

HAW x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

HAW x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [HAW graduate-level courses](#).

Hawaiian Studies (HWST) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

HWST 107 Hawai'i:Center of the Pacific (3) An introduction to the unique aspects of the native point of view in Hawai'i and the larger

Pacific with regards to origins, language, religion, land, art, history and modern issues.

HWST 111 Hawaiian 'Ohana (3) 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. (Attributes: GAHP, HPP)

HWST 175 Intro Music Of Polynesia (3) A general survey of the indigenous 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). (Attributes: GAHP, HPP)

HWST 176 Hist & Dev Of Hawn Music (3) A general survey of the interrelationships of indigenous and acculturated Hawaiian music. Vocal music genres to be discussed include: chant; Christian hymn singing; secular choral singing; male and female falsetto singing; Chalalang; Hapa Haole; and contemporary. Instrumental music genres include: Pre-European instrumental styles; slack key guitar; 'ukulele; and steel guitar. (Same as MUS 176) (Attributes: GAHP, HPP)

HWST 205 Hawaiian Music in Action (2) 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. Pre: HAW 101 or 107. (Attributes: GAHP)

HWST 211 Hawaiian Ethnobotany (3) 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. (Attributes: GAHP, HPP)

HWST 213 Hawaiian Ethnozoology (3) 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. (Attributes: GAHP, HPP)

HWST 471 Mele 'Auana (3) 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; HWST 361, HWST 462. (Attributes: GAHP)

HWST 474 Hula Kahiko (3) Hawaiian dance forms within the traditional halau hula. 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. Recommended: HWST 361, 462, 471, 473 recommended. (Attributes: ALEX, GAHP, GCC, HPP)

HWST 496 Hawaiian Studies Seminar (3) Readings, research and field work on the traditional and contemporary Hawaiian community. Conducted in Hawaiian. Pre: HAW 303 and senior standing, or instructor's consent. (Attributes: ALEX, GAHP, GCC, HPP)

HWST x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.



HWST x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [HWST graduate-level courses](#).

History (HIST) Courses

College of Arts and Sciences (CAS)

HIST 151 World History to 1500 (3) A global and historical survey focusing on human societies and cross-cultural interactions to 1500 C.E.

HIST 152 World History since 1500 (3) A global and historical survey focusing on human societies and cross-cultural interactions since 1500 C.E.

HIST 284 History of Hawaii (3) A survey course in the history of the Hawaiian Islands from Polynesian origins to contemporary multi-cultural society. Traces the impact of major events and historical figures upon Hawaiian society and also considers the Hawaiian response to these changes. (Attributes: GAHP, HPP)

HIST 300 Historical Methods (3) Methods of conducting historical research, including library, Internet, and archival research, in addition to an introduction to issues of professional historiography. Students will complete a wide variety of exercises designed to prepare them for historical work of the major. Pre: sophomore standing or instructor's consent.

HIST 301 Professional Practice (3) Examination of academic careers, internships, and professional opportunities for History majors and minors. Topics covered include: building a CV, professionalism, ethics, internships, job market/interview process, and graduate school. Pre: sophomore standing or instructor's consent.

HIST 309 History of Asian Religions (3) The historical development of Asian religious traditions from their origins to the present, with an emphasis on the major traditions of India, China, and Japan. (Attributes: GAHP)

HIST 310 Hist of Japan I: Early Japan (3) Japanese history and culture from prehistory to the mid-seventeenth century. Topics include: origins of Japanese people and culture; the Imperial state; contacts with China and Korea; aristocratic culture, particularly the role of women; the samurai class and the Shogunates; Buddhism and Shinto; late medieval disorder and development; unification and pacification. Pre: sophomore standing or instructor's consent. (Same as JPST 310) (Attributes: GAHP)

HIST 311 Hist Japan II: Tokugawa to Mej (3) Japanese history and culture from the seventeenth through nineteenth centuries. Topics include: samurai and the class system, political change, economic growth and social tensions; urban and rural evolution; popular culture and literature; Japan's isolation and reopening; collapse of the Tokugawa system; the Meiji Restoration; dissolution of the samurai class; social reorganization and rapid modernization; the Meiji Constitution and new Imperial state. Pre: sophomore standing or instructor's consent. (Same as JPST 311) (Attributes: GAHP)

HIST 312 Hist of China I: Early China (3) Chinese history and culture from prehistory through the Ming dynasty. Topics include: Chinese philosophy, culture, religion and literature; the Imperial State; family

institutions; China's relationship with border societies; dynastic cycles and creative disorder; technology and economic change; education and the state examination system; Mongol invasion and empire; China's role in world trade. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

HIST 313 History Of China II: Qing (3) Chinese history and culture from the seventeenth century through the fall of the Qing in 1912. Topics include: fall of the Ming and establishment of the Qing Dynasty; Manchu-Han relations; economic growth and world trade; opium; international relations; reformers, reform movements and uprisings; adapting Western ideas and technology; collapse of the Qing. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

HIST 314 Hist of Jpn III: 20th Cent-Pre (3) Japanese history and culture from 1890 to present. Topics include: Meiji and 1947 constitutions; democracy and leadership; militarism and pacifism; evolving Imperial institution; economic growth and social change; tradition and modernity in Japanese culture; Japan's place in world systems and world culture. (Same as JPST 314) (Attributes: GAHP, HPP)

HIST 316 Pacific History I: To 1900 (3) Melanesia, Micronesia and Polynesia from pre-contact to 1900: Euro-American exploration, culture contact and colonial annexation. Pre: sophomore standing or instructor's consent. (Attributes: GAHP, HPP)

HIST 317 Pacific History II: From 1900 (3) Continuation of HIST 316. Melanesia, Micronesia and Polynesia from 1900 to the present: colonial exploitation, decolonization, independence and the search for identity in the contemporary world. Pre: sophomore standing or instructor's consent. (Attributes: GAHP, HPP)

HIST 318 Hist China III: 20th Cent-Pres (3) Chinese history and culture from 1900 to present. Topics include: Fall of the Qing dynasty; Republic of China; warlordism; imperialism and Chinese resistance; Civil War, Communist reunification of the mainland; People's Republic under Mao Zedong; post-Mao Chinese economic reforms and leadership; Nationalist Taiwan's economic growth and slow democratization; international relations including overseas Chinese. Pre: sophomore standing or instructor's consent. (Attributes: GAHP, HPP)

HIST 319 European Women's History (3) Study of European women from pre-history to the twentieth century with emphasis on women's social and cultural roles in western history. Current feminist theory is also studied. Pre: sophomore standing or instructor's consent. (Same as WS 319)

HIST 321 Hist of Australia & N Zealand (3) Both Australia and New Zealand are part of the broader Pacific region, had colonies in the Pacific and continue to have significant influence in the islands. This course examines the origin and nature of their indigenous populations, the evolving nature of their settler communities with Great Britain in the nineteenth century and their development as independent nations in the twentieth century. Offered in Spring Semester only. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

HIST 322 The Bible and History (3) Selected books of the Old and New Testaments with reference to their historical and cultural background. Pre: sophomore standing or instructor's consent.

HIST 323 Ancient Greece (3) Political, social, and cultural history of ancient Greece from the Minoan to Hellenistic periods.

HIST 324 Militarization in the Pacific (3) This course examines the role of militarization in the Pacific Islands and the Pacific Rim from the



late 18th century to present day. Diligent attention will be paid to WWII in the Pacific, but the course will also consider social, political, and military history in Oceania as an extension of colonialism, as well as the subsequent reactions to that militarization. Pre: sophomore standing or instructor's consent. (Attributes: GAHP, HPP)

HIST 327 Environmental History--Pacific (3) This course in Pacific Islands history analyzes how changes in the environment affected the daily lives of the people of/in Oceania, and how the actions of the people of/in Oceania affected environmental changes, with an emphasis on 19th and 20th century history. Pre: sophomore standing or instructor's consent. (Attributes: HPP)

HIST 332 Hawaiian Kingdom (3) History of Hawai'i from early migrations and settlement to the 1890's with emphasis on political and social history; formation of the Kingdom of Hawai'i, changes in land tenure, disease and depopulation issues, the 1893 overthrow of the monarchy, and annexation. (Attributes: GAHP, HPP)

HIST 333 Twentieth Century Hawaii (3) History of Hawai'i since the overthrow of the monarchy in 1893, covering the Republic of Hawai'i and the period under United States control - immigration, World War II, the labor movement and the red scare, Hawaiian renaissance and the sovereignty movement. Pre: sophomore standing or instructor's consent. (Attributes: GAHP)

HIST 336 Disease & Medicine in Hawai'i (3) With a focus on the nineteenth century, this course considers the role of health, disease and medicine in Hawai'i from the pre-kingdom era to contemporary times by bringing together the approaches of history and medical anthropology, with the understanding of (bio)medicine. Perceptions of health, the body and medicine and the impact of epidemic diseases in Hawai'i's cultural, social and political history from both Native Hawaiian and Western perspectives are examined. (Attributes: GAHP)

HIST 339 Athletics & Health in Hawai'i (3) This survey course examines the role of fitness/athletics and health-related activities in Hawaiian lifestyles, prior to foreign arrivals through to the late 20th century. The course also examines the consequences of political, economic, and cultural change on Native Hawaiian health-related activities and practices. (Same as KES 339)

HIST 340 History of Religion in America (3) A historical and thematic study of the growth of religion in America from the seventeenth century to the present. Pre: sophomore standing or instructor's consent.

HIST 341 Ancient Rome (3) Political, cultural, and social history of ancient Rome from the Etruscans to 476 C. E. Pre: sophomore standing or instructor's consent.

HIST 352 History of Britain to 1776 (3) Political, social and cultural history of Britain from its origins in prehistory and Roman Britannia to the year 1776.

HIST 353 English History & Shakespeare (3) This course explores the relationship between the events of fourteenth, fifteenth, and sixteenth century English history and Shakespeare's history plays. Pre: sophomore standing or instructor's consent.

HIST 354 Intro to Islamic History (3) A history of the growth and development of Islam from the time of Muhammad to the present. Special attention is given to the relationship of Islam to the history and religious traditions of Europe. Pre: sophomore standing or instructor's consent.

HIST 356 Medieval Europe (3) A survey of the social, intellectual, cultural, and political development of Europe from the fall of the Roman Empire to the late seventeenth century. Topics covered include feudalism, religion, the crusades, trade, epidemic disease, warfare, the Renaissance, Reformation, and the Scientific Revolution. Pre: sophomore standing or instructor's consent.

HIST 357 Renaissance & Reformation (3) Political, social, intellectual, religious, and artistic development of the Renaissance and the Protestant and Catholic Reformations. Pre: sophomore standing or instructor's consent.

HIST 358 Women in Christianity (3) Examines issues relating to sex and gender throughout the history of Christianity. Emphasizing primary texts, the course will explore writings by Christian women and Christian writings about women. Pre: sophomore standing or instructor's consent. (Same as WS 358)

HIST 359 Christianity & Western Traditn (3) An introduction to the history and spirituality of Christianity and its relationship to "The Western Tradition" from its origins to the present. Pre: sophomore standing or instructor's consent.

HIST 360 American Women's History (3) Study of American women from the seventeenth to the twentieth centuries. Special emphasis will be on women's social and cultural roles. Current feminist theory is also studied. Pre: sophomore standing or instructor's consent. (Same as WS 360)

HIST 361 History of Sport (3) A history of sport from the ancient world to the present. Special attention to the history of sport in Europe and the Americas (Same as KES 361)

HIST 365 War & Empire in 18th Cent Eur (3) A survey of the social, intellectual, cultural, and political development of Europe from the War of the Spanish Succession to the advent of the Napoleonic era. Topics covered include absolutism, Enlightenment, mercantilism, military conflict, and revolution. Pre: Sophomore standing or instructor's consent.

HIST 375 Europe in The 19th Century (3) A survey of the social, intellectual, cultural, and political development of Europe from the Napoleonic era to the outbreak of the First World War. Topics covered include industrialization nationalism, socialism, liberalism, imperialism, warfare, and revolution. Pre: sophomore standing or instructor's consent.

HIST 378 N. Amer Indig Cultr Survival (3) (lecture/other) This course will cover a broad swath of Native American history from the past few hundred years in the context of cultural survival and resistance. The course will begin with a short background in Native American history, but will be more specifically focused on various examples of resistance and incorporation. (Same as WS 378).

HIST 380 United States: 1620-1789 (3) The political, social, and intellectual history of North America from the time of European contact until 1789. Topics include: Native American settlement and polity; European settlement; colonial America; causes and course of the American revolution; development of republican government; constitutional convention; ratification of the federal Constitution. Pre: sophomore standing or instructor's consent.

HIST 381 United States: 1790-1865 (3) The political, social, and intellectual history of the United States from the Early National Period through the Civil War. Topics include: Marshall Court, market revolution and early industrialization, immigration, Jacksonian democracy, social reform movements, sectionalism, Mexican War, Civil War, emancipation.



Pre: sophomore standing or instructor's consent.

HIST 382 United States: 1866-1929 (3) The political, social and intellectual history of the United States from Reconstruction through the Stock Market Crash of 1929. Topics include: key Supreme Court issues, Reconstruction, industrialization, immigration, racial tension, US imperialism, Progressivism, World War I, economic change. Pre: sophomore standing or instructor's consent.

HIST 383 United States: 1930 - 1980 (3) The political, social and intellectual history of the United States from the Great Depression through the Carter Presidency. Topics include: FDR's New Deal, World War II, Civil Rights Movement, Cold War, Kennedy's New Frontier, US involvement in Vietnam, the Watergate Crisis. Pre: sophomore standing or instructor's consent.

HIST 385 Europe in Era Of World War I (3) A survey of the social, intellectual, cultural, and political development of Europe from the late nineteenth century to the interwar period. Topics covered include nationalism, imperialism, art, trade, culture and warfare. Special emphasis on World War I and its effect upon modern European development. Pre: sophomore standing or instructor's consent.

HIST 386 Pre 20th Century US History (3) An examination of pre 20th Century US history focusing on primary sources and the public spaces that interpret the evolving ideals of American styled freedom. Pre: Instructor's consent only.

HIST 389 Oral History Methods (3) This course emphasizes the theories, methods, and debates surrounding oral history. Students will become familiar with the practical aspects of oral history and develop an appreciation for the tools available to historians and other scholars, as well as the necessary skills to begin an oral history project. Pre: One 300-level history course.

HIST 390 Public History in Hawai'i (3) Within the context of the history of Hawai'i, this course examines the role of the historian in representing the historical narrative to the general public. Through exposure to the scholarship, issues, and debates surrounding public history we explore this new and developing field. Along with field-trips to various sites on our island, this course also includes a significant service-learning component. Pre: HIST 274 or instructor's consent. (Attributes: GAHP)

HIST 391 Internship (3) (other) The internship is intended to allow students the opportunity to apply their knowledge and skills in public history in a public, private, or government agency/setting. May be taken for a total of six credits. Pre: HIST 390, instructor's consent, and pre-approved placement. (Attributes: ALEX)

HIST 392 Japanese Women (3) History of women in Japan from the earliest historical eras, including the Heian aristocracy and evolving samurai culture, through the present. Topics include: property rights, family structures, the influence of religion and secular philosophies, effects of political and legal changes, women's role in the economy and its effect on their status and lives, and women's activism. Pre: sophomore standing or instructor's consent. (Same as JPST 392 and WS 392). (Attributes: GAHP)

HIST 393 Hist Preservation & Archives (3) Introduction to and survey of historic preservation and archives. Topics covered include: preservation movement, legality, properties, sustainability, and planning. Additionally topics of archival theory, organization, and management will be covered. Pre: HIST 390 or instructor's consent.

HIST 395 Europe in Era Of World War II (3) A survey of the social, intellectual, cultural and political development of Europe from the interwar period through the cold War. Topics covered include: the Depression, Fascism, Totalitarianism, the Holocaust, the Cold War, and decolonization. Special emphasis on World War II and its effect upon modern European development. Pre: sophomore standing or instructor's consent

HIST 401 Women in Hawaiian History (3) (lecture/other) This course examines the lives and contributions of women in the history of Hawai'i. It considers how events such as the arrival of foreigners, dismantling of the kapu system, the mahele, epidemics, political changes, world wars, etc., affected the social and cultural lives of women, men, children, and families. Course materials seek to understand how those gendered as "feminine" negotiated, accommodated, and resisted these changes over the last two centuries. (Same as WS 401). (Attributes: GAHP)

HIST 403 Hawaiian Historiography (3) How have events in Hawaii's past been remembered, recorded, documented, analyzed, and understood? By examining many of the major works in Hawaiian history this course explores significant trends in the re-constructions of Hawaii's past with an emphasis on content, context, and analysis. Pre: HIST 332 or HIST 333 or instructor's consent.

HIST 411 Family & Gender in Oceania (3) (lecture/other) With a focus on the 19th and 20th centuries, this course examines how historical changes affected the social and cultural lives of women, men, children, and families in Oceania. Throughout the course we will endeavor to explore gendered reconstructions of particular events in the history of the Pacific: historiography, exploration, disease & depopulation, missionization, education, imperialism, colonization and de-colonization in general. (Same as WS 411). (Attributes: GAHP)

HIST 415 Senior Seminar Pacific Studies (3) A reading and research seminar under the supervision of the Pacific Island Studies faculty aimed at demonstrating competence in research and writing on issues related to Pacific Island environments, culture, society, and economy. Pre: instructor's consent for students near completion of Pacific Islands Studies Certificate coursework. (Same as ANTH 435 and GEOG 435)

HIST 420 Mao (3) An in-depth investigation into the life, career and legacy of Mao Zedong, China's dominant twentieth century figure. Competing political and historical interpretations will be examined using biography, primary sources in translation and secondary scholarship. Pre: junior standing and previous coursework on Asian history or instructor's consent. Fall semester only. (Attributes: GAHP)

HIST 425 History Of Russia To 1700 (3) Development of Russian thought, institutions, society, and culture. Warfare, dynastic consolidation, and territorial expansion to 1700. Pre: one 300-level European survey course, or instructor's consent.

HIST 435 Russia Since Peter The Great (3) The development of Russian thought, society, government and institutions from 1700 to the Second World War. Special emphasis on Russian westernization and reform as they were encouraged or abandoned during the reigns of Russian leaders from Peter the Great through Stalin. Pre: one 300-level European survey course or instructor's consent.

HIST 445 European Imperialism (3) The origins and development of European imperialism and its political, social, and environmental impact on the world. Special emphasis on the period from 1850 to the First World War. Pre: one 300-level European survey course or instructor's consent.



HIST 455 Euro Intellect Hist Snce 1789 (3) Intellectual and cultural development of Europe since 1789. Ideas in the arts, philosophy, science, literature, and politics as they have affected Europe. Pre: one 300-level European survey course or instructor's consent.

HIST 459 Germany Snce Frederick The Grt (3) Development of Germany since 1740 in political, social, and economic fields. Special emphasis on the growth of the Prussian state, German unification, the two World Wars and the rise of totalitarianism. Pre: one 300-level European survey course or instructor's consent.

HIST 470 US in the World 1865-2003 (3) U. S. expansion, imperialism, diplomacy and foreign relations from 1865. Pre: one 300-level U. S. survey course or instructor's consent.

HIST 471 US Constitutional History (3) U. S. Constitutional History including discussions of constitutional development, state sovereignty, civil liberties, freedom of contract, affirmative action, and the modern presidency. Pre: one 300-level U. S. history survey course or instructor's consent.

HIST 481 Land & Sovereignty in Pacific (3) Land is fundamental to traditional Pacific Island societies. Colonial rule meant a loss of both political sovereignty and, in many cases, significant amounts of land through private alienation and government acquisition. Using case studies, this course will investigate the historical relationship between land and sovereignty as Pacific people have sought to regain and maintain their independence. (Attributes: GAHP)

HIST 485 Seminar in World History (3) (other) Investigation and discussion of major issues and events in world history. May be applied to any track, depending on area of research. Pre: one 300-level history course or instructor's consent.

HIST 486 Women in Ancient European Civi (3) Study of European women up to the year 800, with primary focus on the Mediterranean Basin. Themes encompass religion, social customs and economic activities. Pre: one of the following courses: HIST 319, 323, 341, 356, 360, or instructor's consent. (Same as WS 486)

HIST 490 Historiography & Resrch Mthds (3) Course focuses on historiography and research methods in history, resulting in a research paper in the student's area of emphasis for the Senior Thesis. Required of all history majors. Pre: senior standing and HIST 300, or instructor's consent.

HIST 491 Senior Thesis (3) Course focuses on the writing of a thesis paper on a topic in the student's area of emphasis. Required of history majors selecting the Thesis option. Recommended for students planning to enter graduate programs. Pre: HIST 490.

HIST x94 Special Topics in Subject Matter (Arr.) (IO) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

HIST x99 Directed Studies (Arr.) (IO) Statement of planned reading or research required. Pre: instructor's consent.

HON 100 Opening Colloquium (3) 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.

HON 495 Honors Research Symposium (1) (other) This course is a research seminar. With the instructions and guidance provided by the faculty advisor each STEM Honor student will prepare a formal research proposal, write a manuscript on their study and findings, and report them in a 20-minute presentation at the Honors Research Symposium. The research reported can be part of the faculty advisor's research program or of the student's own proposing. The research can be original work of the author(s) or original applications of previous research done by others. Pre: Senior standing and admission to Honors program.

HON x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

HON x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Horticulture (HORT) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

HORT 101 Intro Horticulture in Hawaii (2) Introduction to the cultural practices used in horticulture today with emphasis on growing plants in the Hawaiian environment. This course is intended for persons in the community or plant industry who have not had formal training in basic horticulture. Agriculture majors should take HORT 262.

HORT 262 Princ Of Hort (3) (lecture/lab) Introduction to the various divisions of horticulture and the relationship of plants to environment; Plant structure and function with opportunities for observation and practice of various horticultural technologies. Students are required to participate in a garden project. (Attributes: ALEX, GCC)

HORT 263 Hydroponics (3) (lecture/lab) 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.

HORT 264 Plant Propagation (3) (lecture/lab) Seminal propagation; vegetative propagation by cuttings, grafting, budding, layering, division and separation. Propagating systems and plant tissue culture. Recommended: HORT 262

HORT 266 Nursery Management (4) (other) Horticulture and management practices involved in the operation of wholesale nurseries in Hawai'i with emphasis on production of tropical foliage plants. Practical laboratories will include propagation, soil media, structures, irrigation, nutrition, environmental control, post-harvest handling, and marketing. Excursions to various nurseries. Pre: HORT 262 or instructor's consent.

HORT 303 Intro Plant Tissue Culture (3) (lecture/lab) Introduction

Honors (HON) Courses

College of Arts and Sciences (CAS)



to the basic concepts and principles of tissue culturing plants. Special emphasis will be placed on setting up a laboratory and other business concerns. Limited enrollment. Pre: HORT 262 or instructor's consent. Recommended: HORT 264.

HORT 304 Plant Tissue Culture Acclimatiz (3) (lecture/lab)

Discussion and application of methods employed to acclimate locally tissue cultured plants. Limited enrollment. Pre: HORT 262. Recommended: HORT 303.

HORT 350 Trop Landscape Horticulture (3) Identification of landscape plants; design, construction, installation, care and maintenance of landscapes. Limited enrollment. Pre: HORT 262 or BIOL 171.

HORT 351 Veg Crop Production (3) (lecture/lab) Vegetable cultural methods, postharvest handling method and marketing. Special emphasis will be placed on rowing crops for market sales. Pre: HORT 262 or instructor's consent.

HORT 352 Trop Fruit Production (3) (lecture/lab) History, botanical relationships, climatic relationships, culture, management, and marketing. Excursions to various fruit orchards. Pre: HORT 262 or instructor's consent.

HORT 354 Floriculture (4) (lecture/lab) 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 instructor's consent.

HORT 360 Orchidology (4) (lecture/lab) Systematics, anatomy, physiology, and breeding of orchids with emphasis on production of orchid plants and flowers. Practical laboratories will include culture from pollination to marketing and field trips to local orchid nurseries.

HORT 437 Structure Of Trop Plants (4) Plant structure in relation to cultural practices, functions, genetic factors and development. Pre: BIOL 171. (Same as BIOL 417)

HORT 450 Adv Plant Tissue Cult (3) (lecture/lab) 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. Repeatable for a maximum of six credit hours. Pre: HORT 303.

HORT 451 Plant Improvement (3) (lecture/lab) Application of plant breeding techniques and methods of improving crops with special emphasis on Hawaiian plants.

HORT 471 Post Harvest Handling (3) (lecture/lab) Methods of handling, storing, and shipping of fresh horticultural commodities with emphasis on Hawaiian fruits, vegetables, and ornamental plants. Pre: CHEM 151 or CHEM 161 or equivalent, and HORT 262.

HORT 481 Weed Science (3) (lecture/lab) Classification, identification, and adaptation of weeds. Principles of weed control, including properties, use, and action of herbicides. Pre: HORT 262 or BIOL 171 and one year of chemistry.

HORT x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements

may apply depending on subject and topic.

HORT x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Interdisciplinary Studies (IS) Courses

College of Arts and Sciences (CAS)

IS 201 Pre-Pharmacy Orientation (2) This course is a requisite for the Pre-Pharmacy Program at UH Hilo. It will familiarize the student with the academic requirements of the Pre-Pharmacy Program and the Doctorate of Pharmacy degree. Individual lectures will cover the clinical, technical and ethical responsibilities of a Pharmacist in the 21st century, and allow students to become familiar with job opportunities for pharmacists. This course will provide interactions with local pharmacists and doctoral pharmacy students through mentor partnerships. Offered on a CR/NC basis only.

IS 393 Foreign Field Experience (1-15) (other) Academic coursework, research, or internship in foreign locations which may transfer into specific disciplines after 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.

IS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

IS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Japanese (JPNS) Courses

College of Arts and Sciences (CAS), Languages

JPNS 101 Elementary Japanese I (4) (lecture/lab) Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Same as JPST 101) (Attributes: GAHP)

JPNS 101S Elementary Japanese I, Special (3) Specially designed for students with some language background of Japanese. Same material as JPNS 101 more quickly covered. Development of four skills - speaking, listening, reading and writing - and an adequate entry-level knowledge of Japanese. A variety of classroom activities such as dialogue role-play, presentations, grammar exercises and individualized laboratory work. After reviewing Hiragana and Katakana, the course focuses on strengthening the skill of reading and writing Kanji characters at the beginning level. Pre: Department Approval. (Same as JPST 101S) (Attributes: GAHP)

JPNS 102 Elementary Japanese II (4) (lecture/lab) Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Same as JPST 102) (Attributes: GAHP)

JPNS 102S Elementary Japanese II Special (3) Japanese 102S, a



continuation of 101S (for students with some language background of Japanese), covers the same material as JPNS 102 more quickly. 102S is one of the language core courses required for non-native speakers of Japanese majoring in Japanese Studies. The course is designed to provide students with instruction on elementary level spoken and written Japanese. Pre: JPNS 101S or Instructor's approval. (Same as JPST 102S)

JPNS 107 Accelerated Element Japanese (8) Contents of JPNS 101-102 covered in one semester. Meets two hours daily, Monday through Friday. Language laboratory required. Development of four skills - speaking, listening, reading and writing - and an adequate knowledge at the beginning level of Japanese language. A variety of classroom activities, such as dialogue role-play, individual and group presentations, grammar exercises, individualized laboratory work, and reading/writing practice in the basic scripts (Hiragana, Katakana and Kanji Characters). (Same as JPST 107) (Attributes: GAHP)

JPNS 201 Intermediate Japanese I (4) (lecture/lab) Continuation of JPNS 102. More advanced colloquial structures and additional kanji. Pre: JPNS 102 or equivalent. (Same as JPST 201) (Attributes: GAHP)

JPNS 202 Intermediate Japanese II (4) (lecture/lab) Continuation of JPNS 201. More advanced colloquial structures and additional kanji. Pre: JPNS 201 or equivalent. (Same as JPST 202) (Attributes: GAHP)

JPNS 301 Third-Year Japanese I (3) Study of modern spoken and written Japanese involving advanced structures, expressions, and kanji. Pre: JPNS 202 or equivalent. (Same as JPST 301) (Attributes: GAHP, HPP)

JPNS 302 Third-Year Japanese II (3) Study of modern spoken and written Japanese involving advanced structures, expressions, and kanji. Pre: JPNS 301 or equivalent. (Same as JPST 302) (Attributes: GAHP, HPP)

JPNS 340 Japanese Composition (3) Writing compositions employing designated patterns, kanji, and themes. Pre: JPNS 202 or equivalent. (Same as JPST 340). (Attributes: GAHP)

JPNS 345 Methods for Teaching Japanese (3) Japanese language teaching and learning from the perspectives of theory and practice. The application of modern applied linguistics and methodologies to specific problems confronting the Japanese language teacher and other foreign language teachers. Pre: JPNS 202. (Same as JPST 345) (Attributes: GAHP)

JPNS 359 Japanese in Hawai'i (3) An examination of the process by which second generation Japanese people in Hawai'i become bilingual and bicultural. Historical and Linguistic contexts for becoming bilingual and bicultural are presented. Topics include Japanese culture and the role of first generation immigrants in Hawai'i. (Same as JPST 359) (Attributes: GAHP)

JPNS 361 Feminism in Japan (3) A historical survey of Japanese women and feminism focusing on Japan's changing aspects from the ancient to the contemporary periods. The course questions the current popular Western image of the subservient Japanese women and articulates the role of Japanese women in Japanese society. (Same as JPST 361 and WS 361) (Attributes: HPP)

JPNS 365 Japanese Lit in English (3) Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JPST 365, ENG 365). (Attributes: GAHP, HPP)

JPNS 370 Lang, Cul & Identity of Japan (3) Relationship of Japanese language to social structure, interpersonal relationships, and way of thinking. Application of general linguistics to social phenomena such as dialects, identity, bilingualism, acculturation. Pre: JPNS 101 or consent of

instructor. (Same as JPST 370)

JPNS 380 Japanese Mythology in Film (3) Interdisciplinary approaches to the study of Japanese myths and legends through contemporary films; mythological contexts related to Taoism, Buddhism, Shintoism as well as superstitions and legends are examined in relation with selected films from Japan. (Same as JPST 380) (Attributes: GAHP)

JPNS 382 Gender & Min Japanese Comics (3) Examination of gender and minority issues through a number of Japanese comic stories, or manga, translated into English. Analysis of the selected comic stories is based on a trove of scholarly writings about a protagonists' gender roles as well as Japan's subcultures representing marginalized groups of society. Discussion topics include the influences of manga on the creation of "ideal" men and women and its contribution to the awareness of minorities in Japan from 1960's to the present. Class work does not require the ability to read original Japanese texts. (Same as JPST 382.) (Attributes: GAHP, HPP)

JPNS 383 Japanese Theatre & Performance (3) This course introduces the performance traditions in Japan, ranging from rituals to dance and theatre-traditional art forms such as kagura, noh, kyogen, kabuki, bunraku, to modern theatre after Japan's Westernization. Through readings and visual materials, students will observe the historical development of Japanese theatre and other performing art forms, from the ancient period to contemporary. At the same time, students are required to examine the Japanese art forms from the anthropological and sociological perspectives. The unique aspects of Japanese art forms-fusion of daily behavior, cultural appropriation, and intercultural elements-will be considered. Students also look at the role of performing arts and its preservation (like transmission of skills from generation to generation). Pre: ENG 100, 100T, 100H, ESL 100 or 100T. (Same as JPST/DRAM 383) (Attributes: GAHP, HPP)

JPNS 385 Postwar Japn thru Film & Lit (3) This course introduces students to Japanese society and culture with emphasis on 1945 to the present, as reflected in film and literature. Students learn about essential issues of Japanese postwar society, including class, family, gender, work, education, and minorities, and examine the change and development of Japanese society after World War II, paying attention to the struggles between traditional cultural values and Americanization/Modernization of society. This semester students will view fourteen films by fourteen leading Japanese directors and read an essay and a novel written by Japanese authors and a variety of articles on film. Pre: ENG 100, 100T, ESL 100 or ESL 100T. (Same as JPST 385). (Attributes: GAHP, HPP)

JPNS 401 Fourth-Yr Japanese I (3) Study of modern spoken and written Japanese involving advanced structures, expressions and additional kanji. Pre: JPNS 302 or equivalent. (Same as JPST 401). (Attributes: GAHP)

JPNS 402 Fourth-Year Japanese II (3) This is an advanced course in conversation and composition covering cultural topics. It develops listening and speaking skills to communicate orally in authentic Japanese and expands spoken and written vocabulary knowledge. Students will practice presenting their ideas in speech and composition effectively. Pre: JPNS 302 or instructor's consent. (Same as JPST 402) (Attributes: GAHP)

JPNS 425 Translation Workshop (3) 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 JPST 425) (Attributes: GAHP)



JPNS 451 Structure Of Japanese I (3) Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 451, JPST 451) (Attributes: GAHP, HPP)

JPNS 452 Structure Of Japanese II (3) Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 452, JPST 452). (Attributes: GAHP)

JPNS 481 Rdgs in Modern Japanese Lit I (3) 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 JPST 481) (Attributes: GAHP)

JPNS 495 Japanese Studies Seminar (3) The course examines Japanese experiments with the idea of the modern and postmodern, focusing on issues such as modernization/westernization, change in gender roles, urbanization, the power of the state, and nationalism and personal identity. In the course, mainly taught in Japanese students learn how to read and discuss in Japanese, and translate Japanese texts into English. The course introduces a variety of materials written between the end of Russo-Japanese War in 1905 and the current period. Pre: JPNS 302 or instructor's consent. (Same as JPST 495) (Attributes: GAHP)

JPNS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

JPNS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Japanese Studies (JPST) Courses

College of Arts and Sciences (CAS), Languages

JPST 101 Elementary Japanese I (4) (lecture/lab) Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. (Same as JPNS 101) (Attributes: GAHP)

JPST 101S Elementary Japanese I, Special (3) Specially designed for students with some language background of Japanese. Same material as JPNS 101 more quickly covered. Development of four skills - speaking, listening, reading and writing - and an adequate entry-level knowledge of Japanese. A variety of classroom activities such as dialogue role-play, presentations, grammar exercises and individualized laboratory work. After reviewing Hiragana and Katakana, the course focuses on strengthening the skill of reading and writing Kanji characters at the beginning level. Pre: Department Approval. (Same as JPNS 101S) (Attributes: GAHP)

JPST 102 Elementary Japanese II (4) (lecture/lab) Development of listening, speaking, reading, writing. Structural points introduced inductively. Laboratory drill. Pre: JPNS 101 or equivalent. (Same as JPNS 102) (Attributes: GAHP)

JPST 107 Accelerated Element Japanese (8) Contents of JPNS 101-102 covered in one semester. Meets two hours daily, Monday through Friday. Language laboratory required. Development of four skills - speaking, listening, reading and writing - and an adequate knowledge at the beginning level of Japanese language. A variety of classroom

activities, such as dialogue role-play, individual and group presentations, grammar exercises, individualized laboratory work, and reading/writing practice in the basic scripts (Hiragana, Katakana and Kanji characters). (Same as JPNS 107) (Attributes: GAHP)

JPST 200 Intro to Jpns & Chns Studies (3) This course studies the two regions of East Asia (Japan and China) with emphasis on philosophical, religious and cultural traditions, and patterns of social, economic and political change. Students will gain a general understanding of each region through a broad survey of important cultural movements and historical events that have made Japan and China what it is today. (Same as LANG 200) (Attributes: GAHP, HPP)

JPST 201 Intermediate Japanese I (4) (lecture/lab) Continuation of JPNS 102. More advanced colloquial structures and kanji. Pre: JPNS 102 or equivalent. (Same as JPNS 201) (Attributes: GAHP)

JPST 202 Intermediate Japanese II (4) (lecture/lab) Continuation of JPST 201. More advanced colloquial structures and additional kanji. Pre: JPNS 201 or equivalent. (Same as JPNS 202) (Attributes: GAHP)

JPST 301 Third-Year Japanese I (3) Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, kanji. Pre: JPNS 202 or equivalent. (Same as JPNS 301) (Attributes: GAHP)

JPST 302 Third-Year Japanese II (3) Study of modern spoken and written Japanese involving advanced structures, expressions, patterns, kanji. Pre: JPNS 301 or equivalent. (Same as JPNS 302) (Attributes: GAHP)

JPST 310 Hist of Japan I: Early Japan (3) Japanese history and culture from prehistory to the mid-17th century. Topics include: origins of Japanese people and culture; the Imperial state; contacts with China and Korea; aristocratic culture, particularly the role of women; the samurai class and the Shogunates; Buddhism and Shinto; late medieval disorder and development; unification and pacification. (Same as HIST 310) (Attributes: GAHP)

JPST 311 Hist Japan II: Tokugawa to Mei (3) Japanese history and culture from the 17th through 19th centuries. Topics include: samurai and the class system; political change, economic growth and social tensions; urban and rural evolution; popular culture and literature; Japan's isolation and reopening; collapse of the Tokugawa system; the Meiji Restoration; dissolution of the samurai class; social reorganization and rapid modernization; the Meiji Constitution and new Imperial state. (Same as HIST 311) (Attributes: GAHP)

JPST 314 Hist of Jpn III: 20th Cent-Pre (3) Japanese history and culture from 1890 to present. Topics include: Meiji and 1947 constitutions; democracy and leadership; militarism and pacifism; evolving Imperial institution; economic growth and social change; tradition and modernity in Japanese culture; Japan's place in world systems and world culture. (Same as HIST 314) (Attributes: GAHP, HPP)

JPST 315 East Asian Religions (3) The development of Buddhism, Confucianism, Taoism, Shinto and folk religion in China, Korea and Japan. Pre: junior standing or instructor's consent. (Attributes: GAHP)

JPST 340 Japanese Composition (3) Writing compositions employing designated patterns, kanji, and themes. Pre: JPNS 202 or equivalent. (Same as JPNS 340). (Attributes: GAHP)

JPST 345 Methods for Teaching Japanese (3) Japanese language teaching and learning from the perspectives of theory and practice. The application of modern applied linguistics and methodologies to specific problems confronting the Japanese language teacher and other foreign



language teachers. Pre: JPNS 202. (Same as JPNS 345) (Attributes: GAHP)

JPST 353 Politics Of Japan (3) 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. (Same as POLS 353). (Attributes: GAHP, HPP)

JPST 356 Japan (3) Culture origins and development with emphasis on contemporary Japanese culture. (Same as ANTH 356) (Attributes: GAHP)

JPST 358 Japanese Immigrants (3) 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 ANTH 358) (Attributes: GAHP)

JPST 359 Japanese in Hawai'i (3) An examination of the process by which second generation Japanese people in Hawai'i become bilingual and bicultural. Historical and Linguistic contexts for becoming bilingual and bicultural are presented. Topics include Japanese culture and the role of first generation immigrants in Hawai'i. (Same as JPNS 359) (Attributes: GAHP)

JPST 361 Feminism in Japan (3) A historical survey of Japanese women and feminism focusing on Japan's changing aspects from the ancient to the contemporary periods. The course questions the current popular Western image of the subservient Japanese women and articulates the role of Japanese women in Japanese society. (Same as JPNS 361 and WS 361) (Attributes: HPP)

JPST 365 Japanese Lit in English (3) Survey of major works from earliest times to the present. Knowledge of Japanese is not required. (Same as JPNS 365, ENG 365). (Attributes: GAHP, HPP)

JPST 370 Lang, Cul & Identity of Japan (3) Relationship of Japanese language to social structure, interpersonal relationships, and way of thinking. Application of general linguistics to social phenomena such as dialects, identity, bilingualism, acculturation. Pre: JPNS 101 or consent of instructor. (Same as JPNS 370)

JPST 375 Japanese Music (3) Historical survey of traditional, contemporary, and Western-influenced music of Japan and study of major genres. No previous musical knowledge is required. Pre: junior standing or instructor's consent. (Attributes: GAHP)

JPST 380 Japanese Mythology in Film (3) Interdisciplinary approaches to the study of Japanese myths and legends through contemporary films; mythological contexts related to Taoism, Buddhism, Shintoism as well as superstitions and legends are examined in relation with selected films from Japan. (Same as JPNS 380). (Attributes: GAHP)

JPST 381 Art of Japan (3) The history of art in Japan with emphasis on Buddhist art, the relationships between Chinese and Japanese arts. Pre: ART 175 or ART 176 or JPST course or instructor's consent. (Same as ART 381) (Attributes: GAHP, HPP)

JPST 382 Gender & Min Japanese Comics (3) Examination of gender and minority issues through a number of Japanese comic stories, or manga, translated into English. Analysis of the selected comic stories is based on a trove of scholarly writings about protagonists' gender roles as well as Japan's subcultures representing marginalized groups of society. Discussion topics include the influences of manga on the creation of 'ideal' men and women and its contribution to the awareness of

minorities in Japan from 1960's to the present. Class work does not require the ability to read original Japanese texts. (Same as JPNS 382.) (Attributes: GAHP, HPP)

JPST 383 Japanese Theatre & Performance (3) This course introduces the performance traditions of Japan, ranging from rituals to dance and theatre-traditional art forms such as kagura, noh, kyogen, kabuki, bunraku, to modern theatre after Japan's Westernization. Through readings and visual materials, students will observe the historical development of Japanese theatre and other performing art forms, from the ancient period to contemporary. At the same time, students are required to examine the Japanese art forms from the anthropological and sociological perspectives. The unique aspects of Japanese art forms-fusion of daily behavior, cultural appropriation, and intercultural elements-will be considered. Students also look at the role of performing arts and its preservation (like transmission of skills from generation to generation). Pre: ENG 100, 100T, 100H, ESL 100 or 100T. (Same as JPNS/DRAM 383) (Attributes: GAHP, HPP)

JPST 385 Postwar Japn thru Film & Lit (3) This course introduces students to Japanese society and culture with emphasis on 1945 to the present, as reflected in film and literature. Students learn about essential issues of Japanese postwar society, including class, family, gender, work, education, and minorities, and examine the change and development of Japanese society after World War II, paying attention to the struggles between traditional cultural values and Americanization/modernization of society. This semester students will view fourteen films by fourteen leading Japanese directors and read an essay and a novel written by Japanese authors and a variety of articles on film. Pre: ENG 100, 100T, ESL 100, or ESL 100T. (Same as JPNS 385). (Attributes: GAHP, HPP)

JPST 401 Fourth-Year Japanese I (3) Study of modern spoken and written Japanese involving advanced structures, expressions and additional kanji. Pre: JPNS 302 or equivalent. (Same as JPNS 401). (Attributes: GAHP)

JPST 402 Fourth-Year Japanese II (3) This is an advanced course in conversation and composition covering cultural topics. It develops listening and speaking skills to communicate orally in authentic Japanese and expands spoken and written vocabulary knowledge. Students will practice presenting their ideas in speech and composition effectively. Pre: JPNS 302 or instructor's consent. (Same as JPNS 402) (Attributes: GAHP)

JPST 410 History of Chinese Characters (3) This course introduces Chinese civilization and history through an investigation of the evolution of Chinesescript and the socio-cultural factors related to it. Archaeological and historical materials are used in introducing its various forms in history: from tortoiseshellscrip to seal and clericalscripts as well as regularscript. Historical and cultural setting of creating and using the specificscript are examined. The transformation of Chinesescript into Japanese "kanji" and cultural exchange between Asian countries are also discussed. Pre: one of the following: CHNS 101, CHNS 107, JPNS 101, JPNS 101S, or JPNS 107. (Same as LANG/CHNS 410) (Attributes: GAHP)

JPST 414 Global Social Movements & Japan (3) Exploration of the expansion of transnationally linked social movements with a concentration on justice movements in Japan. Pre: SOC 100 or LANG/JPST/CHNS 200 or permission of instructor (same as SOC 414). (Attributes: HPP)

JPST 425 Translation Workshop (3) 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)



(Attributes: GAHP)

JPST 430 Philosophy of Zen (3) 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. Recommended: PHIL 302. (Same as PHIL 430) (Attributes: GAHP, HPP)

JPST 450 Mahayana Buddhist Phil (3) 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 instructor's consent. Recommended: PHIL 302. (Same as PHIL 450) (Attributes: GAHP, HPP)

JPST 451 Structure Of Japanese I (3) Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 451, JPNS 451) (Attributes: GAHP, HPP)

JPST 452 Structure Of Japanese II (3) Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202, or instructor's consent. (Same as LING 452, JPNS 452). (Attributes: GAHP)

JPST 457 Japanese Culture & Commun (3) This course explores aspects of Japanese communication from cross-cultural perspectives and examines problems in intercultural interactions between Japanese and non-Japanese. (Same as COM 457) (Attributes: GAHP)

JPST 481 Rdgs in Modern Japanese Lit I (3) 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) (Attributes: GAHP)

JPST 495 Japanese Studies Seminar (3) The course examines Japanese experiments with the idea of the modern and postmodern, focusing on issues such as modernization/westernization, change in gender roles, urbanization, the power of the state, and nationalism and personal identity. In the course, mainly taught in Japanese students learn how to read and discuss in Japanese, and translate Japanese texts into English. The course introduces a variety of materials written between the end of Russo-Japanese War in 1905 and the current period. Pre: JPNS 302 or instructor's consent. (Same as JPNS 495) (Attributes: GAHP)

JPST x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

JPST x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Ke'elikōlani Education (KED) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT

(Anthropology), ED (Education), etc.

KED 341 Ulu Ke Keiki (3) This course will examine child development from a Hawaiian perspective. This course will examine Hawaiian principles and philosophy of child development, current child development research and studies, and appropriate curriculum, pedagogy and evaluation aligned with child growth and development. This course is taught solely in the Hawaiian language. Pre: KHAW 204 or equivalent (which may be taken concurrently) and permission of the instructor.

KED 342 He 'Ohana Lanakila (3) This course will look at the concept of 'ohana as it relates to Indigenous Hawaiian education from a macro to micro perspective and the Hawaiian language movement family and community; the school family and community; and working with families. Students will examine the history of Indigenous Hawaiian education and the Punana Leo's place as the early childhood education component in this history. The course will further examine the role and responsibilities of the teacher in an Indigenous Hawaiian early childhood education program. This course is taught solely in Hawaiian language. Pre: KHAW 204 or equivalent (which may be taken concurrently) and permission of the instructor. Recommended: KED 341

KED 343 Ma Ka Hana Ka 'Ike I (3) This course will examine the curriculum and pedagogy of the Punana Leo Indigenous Hawaiian medium early childhood education. Students will learn the main components of the Punana Leo curriculum including scope and sequence, daily routines, and classroom learning centers---particularly the Makauola and Makaulonoa centers and lessons. This course is taught solely in the Hawaiian language. Pre: KHAW 204 or equivalent (which may be taken concurrently) and permission of the instructor. Recommended: KED 341, KED 342.

KED 344 Ma Ka Hana Ka 'Ike II (3) This course will examine the curriculum and pedagogy of the Punana Leo Indigenous Hawaiian medium early childhood education. Students will learn Punana Leo curriculum scope and sequence, daily routines, focusing on Makaumakemakika and Makauolelo learning centers and lessons. This course is taught solely in the Hawaiian language. Instructor Permission Required. Pre: KHAW 204 or equivalent (which may be taken concurrently) and permission of the instructor. Recommended: KED 341, KED 342, KED 343.

KED 462 Enrichg Holistic Lrng Maui Ola (1) Continuation of KED 461. Advanced level for increasing teacher effectiveness through culturally appropriate classroom practices and curriculum development. Course work focuses on improving culture-based instruction through evaluation and revision of a unit plan. Must be taken CR/NC. Conducted in Hawaiian. Pre: KED 361 and KED 461; minimum of 3 years college-level Hawaiian language course work, and permission from the College.

KED 463 Substitute Tcher Sem in Maui (1) Preparation to teach in an Hawaiian medium environment as a substitute teacher. Content includes the completion of Hawai'i State requirements for substitute teacher certification, basic classroom management, lesson design and delivery, learning and implementation of policies and procedures to be employed as a substitute in Hawai'i DOE schools. Must be taken as CR/NC. Conducted in Hawaiian.

KED x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements



may apply depending on subject and topic.

KED x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [KED graduate-level courses](#).

Ke'elikōlani Hawaiian Language (KHAW) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

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KHAW 103 First Lvl Trans Hawn Immersion (4) Development of analytical skills to improve existing listening, speaking, reading and writing skills at the first level. Taught partially in Hawaiian from a Kumu Honua Maui Ola philosophical base. This course is designed primarily for students with previous high school/beginning college level Hawaiian. (Attributes: HPP)

KHAW 104 First Lvl Partial Hawn Immers (4) Strengthens and increases analytical skills as well as listening, speaking, reading and writing skills from KHAW 103 or HAW 102 or 105. Taught primarily in Hawaiian from a Kumu Honua Maui Ola philosophical base. Pre: KHAW 103, or HAW 102 or 105 or placement exam. (Attributes: HPP)

KHAW 108 Accel First Lvl Hawn Immersion (8) Contents of KHAW 103-104 covered in one semester. Development and strengthening of analytical skills to improve existing listening, speaking, reading and writing skills at the first level. Taught partially in Hawaiian from a Kumu Honua Maui Ola philosophical base. This course is designed primarily for student with previous high school/ beginning college level Hawaiian. Meets two hours daily, Monday through Friday. (Attributes: HPP)

KHAW 133 First Lvl Hawn for Speakers (4) Focus on strengthening skills in language analysis, vocabulary development, and writing at a university level Hawaiian. This course is designed primarily for students educated through the medium of Hawaiian, first language speakers of Hawaiians and native speakers. Pre: Placement exam. (Attributes: HPP)

KHAW 190 Fluency Community Support (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (A) Na Pepeke Kumu; (E) Heluna, 'Awe, Wa; (I) Nono'a, 'Ohana; (O) Kuana'ike, Ho'ohalikelike; (U) Wae'anona; (H) Alohuli (K) Paku'i Pepeke (M) Kalele, Kino 'Oko'a. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190A Fluc Comm Sup:Na Pepeke Kumu (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (A) Na Pepeke Kumu. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190E Fluc Comm Sup:Heluna, 'Awe, Wa (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (E) Heluna, 'Awe, Wa. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190H Fluency Com Sup: Alohuli (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (H) Alohuli. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190I Fluency Comm Sup:Nono'a 'Ohana (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (I) Nono'a, 'Ohana. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190K Fluency Comm Sup:Paku'i Pepeke (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (K) Paku'i Pepeke. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190M FlucCommSup:Kalele,Kino 'Oko'a (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (M) Kalele, Kino 'Oko'a. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190O FCS:Kuana'ike Ho'ohalikelike (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (O) Kuana'ike, Ho'ohalikelike. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 190U Fluency Comm Sup: Wae'anona (1) Fluency needed as a supporter of Hawaiian Revitalization. Stages/Subletters parallel units of structure and vocabulary topics in KHAW 103 & KHAW 104 as follows: (U) Wae'anona. May be repeated if subletters are different. Pre: Permission of the Department Chair.

KHAW 203 Second Lvl Univ Hawn Immers I (4) Second year skills in Hawaiian developed from KHAW 104 base or higher. Focus on accurate personal communicative use and connections to oral Hawaiian of earlier generations. Pre: C or better in KHAW 104, 108 or 133 or HAW 202 or 205 or placement exam or equivalent approved by dept chair. (Attributes: HPP)

KHAW 204 Second Lvl Univ Hawn Immers II (4) Continuation and expansion of KHAW 203. Pre: C or better in KHAW 203 or equivalent as approved by Dept chair. (Attributes: HPP)

KHAW 208 Accel Sec Lvl Univ Hawn Immers (8) Contents of KHAW 203 and 204 covered in one semester. Second year skills in Hawaiian developed from KHAW 104 base or higher. Focus on accurate personal communicative use and connections to oral Hawaiian of earlier generations. Meets 2 hours daily, Monday through Friday. Pre: C or higher in KHAW 104 or KHAW 108 or KHAW 133 or equivalent. (Attributes: HPP)

KHAW 233 Second Level Hawn for Speakers (4) Continuation of HAW 133. Pre: B or better in HAW 133 or equivalent as approved by dept chair. (Attributes: HPP)



KHAW 303 Third Level Hawaiian I (4) Continuation of KHAW 204 and KHAW 208 and KHAW 233. Focus on analysis as the key to strong community use as a modeled in 19th and 20th century native speaker produced writings and tapes. Pre: C or better in KHAW 204 or KHAW 208 or KHAW 233 or equivalent as approved by dept chair.

KHAW 304 Third Level Hawaiian II (4) Continuation of KHAW 303. Leadership development of informal use of Hawaiian among students from HAW 104-303. Pre: C or better in KHAW 303 or equivalent as approved by department chair.

KHAW 333 Applied Skills (3) Practice skills developed in KHAW 304. Pre: Previous or simultaneous enrollment in KHAW 304.

KHAW 403 Fourth Level Hawaiian I (4) Continuation of KHAW 304. Advanced structures, expressions and patterns. Conducted in Hawaiian. Pre: C or better in KHAW 304 or permission of the instructor.

KHAW 404 Fourth Level Hawaiian II (4) Continuation of KHAW 403. Advanced structures, expressions and patterns. Conducted in Hawaiian. Language laboratory required. Pre: C or better in KHAW 403 or permission of the instructor.

KHAW 452 Translation into Hawaiian (3) This courses trains students to translate from English into Hawaiian. A wide range of materials is covered, from school texts to news items and legal materials. Pre: KHAW/HAW 404, which, with permission, may be taken concurrently.

KHAW 453 Hawn Phonetics & Phonol (3) Sound system of the Hawaiian language. Stylistic and regional variation. Interaction of the Hawaiian sound system with the sound system of other languages, especially that of English. Conducted in Hawaiian. Pre: KHAW 204 or equivalent, which, with permission, may be taken concurrently. Recommended: LING 102, LING 111, LING 311.

KHAW 454 Hawn Morphology & Syntax (3) Grammatical system of the Hawaiian language. Conducted in Hawaiian. Pre: KHAW 204 or equivalent, which, with permission, may be taken concurrently. Recommended: LING 102.

KHAW 455 Hawaiian: Polynesian Lang (3) 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: KHAW 303 or concurrent. Recommended: KHAW 453, KHAW 454, LING 371, LING 102.

KHAW 490 Base-level Fluency Hawn Med Ed (1) A review and strengthening of Hawaiian language fluency skills with focus on the applicability to Hawaiian medium education. Must be taken CR/NC. Conducted in Hawaiian. Pre: HAW 303 or simultaneous enrollment.

KHAW x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KHAW x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Ke'elikōlani Hawaiian Studies (KHWS) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

KHWS 405 Hana No'eau (1) 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 topics are different.) Pre: KHAW 204 or equivalent, which, with permission, may be taken concurrently.

KHWS 461 Pana Hawai'i (3) Pana Hawai'i (3) Traditions and literature of Pana (names sites of cultural importance). Emphasis on island of (A) Hawai'i, (E) Maui, (I) Moloka'i and Lan'i, (O) O'ahu, (U) Kaua'i and Ni'ihau, conducted in Hawaiian. Pre: HWST 111 Hawaiian 'Ohana (3), KHAW 204 Second Lvl Univ Hawn Immers II (4) or equivalent, which, with permission, may be taken concurrently. May be repeated for credit if subletters are different.

KHWS 462 Haku Mele (3) Hawaiian poetry as literature. Survey and analysis of traditional and modern forms, methods of composition, poetic language, imagery, and kaona (hidden meanings). Interpreting and composing poetry in Hawaiian. Conducted in Hawaiian. Pre: KHAW 303, which may be taken concurrently, or instructor's consent. Recommended: KHWS/ HWST 461.

KHWS 463 Intro Hawn Narrative Lit (3) Introduction to Hawaiian narrative literature both oral and written. Short traditional tales, excerpts from longer forms, comparison of narrative literature with poetry and conversation event recordings. Pre: KHAW 303, which, with permission, may be taken concurrently. Recommended: KHAW 452.

KHWS 464 Hawaiian Composition (3) Essays and articals in Hawaiian focusing on traditional Hawaiian aesthetics and well-formed presentation. Attention to cultural differences in presentation of material. Pre: KHAW 303, which, with permission may be taken concurrently.

KHWS 465 Ha'i'olelo Ku'una (3) This course will develop a foundational understanding and practice in classical Hawaiian speech making. Through the Kumu Honua Maui Ola Philosophy of Hawaiian Being, this course will focus on reading comprehension of classical Hawaiian literature, mainly to analyze ethno-literary devices and lexical items. Pre: KHAW/HAW 403 or equivalent, may be taken concurrently with permission. Same as HWST 465.

KHWS 471 Mele 'Auana (3) Please contact the department or division office for more information about this course.

KHWS 472 Hula 'Auana (3) Hawaiian Dance forms initiated since 1778. Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: KHAW 204 or equivalent, which, with permission, may be taken concurrently. Recommended: KHWS/HWST 461, KHWS/HWST 462, KHWS/HWST 471.

KHWS 473 Oli/Mele Kahiko (3) Hawaiian musical forms initiated previous to 1778 (e.g. chanted lamentations, chanted greeting, dance



chants, etc.) Traditions concerning their sources and history. Some attention given to performance. Conducted in Hawaiian. Pre: KHAW 204 or equivalent, which with permission, may be taken concurrently. Recommended: KHWS/HWST 461, KHWS/HWST 462, KHWS/HWST 471.

KHWS 474 Hula Kahiko (3) Hawaiian dance forms within the traditional halau hula. Traditions concerning their sources and history, Some attention given to performance. Conducted in Hawaiian. Pre: KHAW 204 or equivalent, which, with permission, may be taken concurrently. Recommended: KHWS/HWST 461, KHWS/HWST 462, KHWS/HWST 471.

KHWS 496 Hawaiian Studies Seminar (3) Readings, research and field work on the traditional and contemporary Hawaiian community. Conducted in Hawaiian. Pre: HAW 303 and senior standing, or instructor's consent.

KHAW x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KHAW x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Ke'elikōlani Indigenous Language (KLAN) Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

KLAN 441 Advanced Structures I (2) First semester advanced level study of an indigenous or lesser studied language focusing on structure, e.g. Blackfeet, Rapanui. May be repeated if the topic is different. Alpha varies according to the language. Pre- requisite or concurrent enrollment in KIND 441; consent of department and of instructor.

KLAN 442 Advanced Structures II (2) Second semester advanced level study of an indigenous or lesser studied language focusing on structure, e.g. Blackfeet, Rapanui. Alpha varies according to the language. May be repeated if the content is different. Pre: KIND 441, KLAN 441, concurrent enrollment in KIND 442; consent of department; consent of instructor.

KLAN x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KLAN x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [KLAN graduate-level courses](#).

Ke'elikōlani Indigenous Studies (KIND) Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

KIND 240 Culture Revitalization Movement (3) Efforts throughout the world to preserve the linguistic and cultural distinctiveness of indigenous and regional minorities. The interrelationship of such efforts with political, cultural, educational, and economic structures. Focus on comparison of other movements with that of Hawai'i. (When followed by H, taught through Hawaiian.)

KIND 441 Advanced Language in Culture I (2) First semester advanced level study of an indigenous language focusing on the use of the language in its cultural context. Alpha varies according to the language, e.g. Blackfeet, Rapanui. May be repeated if the content is different. Prerequisite or concurrent enrollment in KLAN 441; consent of department and of instructor.

KIND 442 Advanced Language in Culture II (2) Second semester advanced level study of an indigenous language focusing on the use of the language in its cultural context. Alpha varies according to the language, e.g. Blackfeet, Rapanui. May be repeated if the content is different. Pre: KIND 441 and KLAN 441, concurrent enrollment in KLAN 442; consent of department and of the instructor.

KIND x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KIND x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [KIND graduate-level courses](#).

Korean (KOR) Courses

[College of Arts and Sciences \(CAS\), Languages](#)

KOR 101 Elementary Korean I (4) A course designed to teach the linguistic fundamentals of the language and the culture of Korea. Emphasis is placed on the reading and writing of Han'gul, speaking and listening, and developing oral conversational skills. (Attributes: HPP)



KOR 102 Elementary Korean II (4) Korean 102 Further builds on the basic foundation established by KOR 101 that will enable students to acquire and develop language skills in listening, speaking, reading, and writing in Korean in a linguistically and culturally appropriate manner. Emphasis is also given to understanding the linguistic ties between Korean and Chinese and Japanese. Pre: C or better in KOR 101. (Attributes: HPP)

KOR x94 Special Topics in Subject Matter (Arr.) (10) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KOR x99 Directed Studies (Arr.) (10) Statement of planned reading or research required. Pre: instructor's consent.

Kinesiology and Exercise Sciences (KES) Courses

[College of Arts and Sciences \(CAS\)](#)

KES 101 Physical Fitness (1) Conditioning exercises and activities to develop and maintain physical efficiency. Motor fitness tests administered to measure status and progress.

KES 103 Swimming: Beginning (1) Adjusting to water, immersing in water, floating, sculling, correct arm stroke, leg kick, breathing techniques and their coordination.

KES 104 Swimming: Intermediate (1) Perfecting and integrating basic strokes with added emphasis on swimming for distance and speed.

KES 107 Tennis: Beginning (1) Rules, etiquette, grip, forehand and backhand strokes, serving, volleying, singles and doubles play.

KES 108 Tennis: Advanced (1) Improving the serve, forehand and backhand strokes, volleying, chop strokes, competitive strategy, problems in rules.

KES 110 Golf: Beginning (1) Rules, etiquette, and skill (grip, stance, stroke) in using the irons, woods, and putter. Driving range and play on golf course require additional fees.

KES 117 Mountain Biking (1) 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.

KES 120 Badminton (1) Rules, etiquette, grip, forehand and backhand strokes, serving, smash, drive, netplay, offensive and defensive strategy in singles and doubles play.

KES 121 Advanced Badminton (1) Competitive singles and doubles strategy, rules and etiquette. Perfecting fundamental strokes: smash, clear, drops, net, and drive shots.

KES 123 Yoga (1) This course provides a foundation for exploring classical yoga postures as well as the history and philosophy of yoga. Each class includes stretching, strengthening, relaxation techniques, pre- and post-flexibility evaluation, proper alignment, focus and breathing techniques.

KES 134 Volleyball: Beginning (1) Rules, fundamental skills of passing, setting, hitting, blocking, digging, and team strategies.

KES 136 Team Sports (1) Skills, knowledge, attitudes and appreciation. Combination of soccer and softball.

KES 138 Basketball: Beginning (1) Rules, etiquette, skills in footwork, body balance, passing, shooting, dribbling, rebounding, individual and team strategies, and plays.

KES 139 Basketball: Advanced (1) Improving fundamental skills, advanced strategies, ball control and shooting skills, offensive and defensive tactics, and officiating.

KES 143 Canoe Paddling (1) (lab) Explore and connect with the spiritual and traditional aspects of our Hawaiian culture through the physical application of the ancient and contemporary sport of canoe paddling.

KES 144 Ocean Safety (1) (lab) Gain an appreciation and awareness of the ocean habitat within the District of Hilo as well as develop general ocean safety skills.

KES 145 Surfing (1) (lab) Explore and connect with the spiritual and traditional aspects of our Hawaiian culture through the physical application of the ancient and contemporary sport of surfing.

KES 146 Edventure (1) Students will be exposed to a variety of experiential physical activities over the course of seven all day sessions. The experiential physical activities that students will be exposed to will be unique to the island of Hawai'i.

KES 152 Weight Training (1) 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.

KES 201 School Health Problems (2) Responsibilities of the elementary school teacher in recognizing and meeting pupil's needs, teacher's role in health instruction, health services, healthful school living, and school health policies.

KES 202 Health Promotion (3) This course is designed for students to understand health in the broadest sense of the word -- as an integrated process for discovering, using, and protecting all possible resources within the individual, 'ohana, community, and environment.

KES 203 Intro to Physical Education (2) Nature, scope, aim and objectives of physical education; basic principles of human movement; physical education as academic discipline and its relationship to fields such as recreation, health education, and athletics.

KES 204 Intro to Coaching Athletics (2) Nature, responsibilities, personal and professional requirements of a coach. Scientific principles applicable to coaching methodology and athletic competition.

KES 206 Basic Human Movement (3) Developing skills to understand the nature and function of human movement in everyday life, sport, dance, physical education, and adapted movement activities.

KES 207 Basic Human Nutrition (3) Fundamental principles of normal nutrition and the importance of nutrition in promoting growth and health.

KES 208 Elementary Tests & Measurement (3) Basic understanding and appreciation of the why and how of testing in health, physical education, and athletics. The development and evaluation of



neuromuscular and organic abilities and the handling of test data by elementary statistical methods will be covered. Pre: Completion of GE Quantitative Reasoning requirement.

KES 209 Data and Stats in Kinesiology (3) This course focuses on the data management and the basic statistics in exercise sciences. Content includes research methods and designs, data collection, organization and management, descriptive and inferential statistics, central tendency, variability, correlation, regression, t-tests, analysis of variance and various nonparametric tests. Computerized statistical analyses are embedded throughout the course.

KES 224 Human Physiology & Spaceflight (3) This course explores the effects of microgravity and spaceflight on the physiology of passengers. Topics addressed in this course include space travel effects on: the skeletal system; the muscular system; the cardiovascular and cardiorespiratory systems; and the neurovestibular system. Effects of radiation exposure, psychosocial issues in spaceflight, and medical risks and preventions will be presented in this course.

KES 232 Safety & Accident Prevention (2) Understanding the fundamental principles and techniques of safety and accident prevention in school, home, work, motor vehicle, and recreational situations.

KES 233 Physical Education: Elementary (3) Content and methods for physical education in elementary school. Selection, planning, teaching, evaluation of movement skills, and activities. Pre: junior standing.

KES 234 Care & Prev Athletic Injuries (3) Fundamentals in athletic training and sports medicine designed to introduce principles and concepts in prevention and treatment of sports-related injuries. Additional fees required.

KES 250 Foundation of Public Health (3) An introduction to public health practice and history, with focus on principles and tools for population health, disease prevention, health promotion, health professions and healthcare systems.

KES 260 Exercise Science Anat & Phys I (3) This course will cover basic human anatomy, physiology and chemistry of cells, organelles, cell division, metabolism, genetics, tissues, the integumentum, bone and muscle tissue. Each subject is presented with the emphasis on its response to activity and exercise.

KES 261 Exercise Science Anat & Phy II (3) This course is a continuation of Exercise Sciences Anatomy and Physiology I. The course will cover basic human anatomy and physiology of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary and reproductive systems. Each subject is presented with the emphasis on its response to activity and exercise. Pre: KES 260.

KES 263 Intramural Athletics (2) 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.

KES 300 Psyc-Soc Aspects Of Sport (3) 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.

KES 302 Sport & Spirituality (3) The spiritual experience of sport is

central both to our basic motivation to take part in sports, and to achieving success. This course explores human aspects of the sport experience through the perspectives of sport psychology, philosophy, ethics, theology and religious studies.

KES 306 Advanced Human Movement (3) Course focuses on the scientific aspects of human movement in everyday life, exercise and sport, adapted movements, everything in between. The contents focus on the physical load introducing principles of Biomechanics and illustrating the application of physics and mechanics on human performance. Pre: KES 206 and completion of GE Quantitative Reasoning requirement.

KES 308 Science Behind Trng Athletes (3) Basic understanding of training theory and the physiological and biomechanical factors that determine muscle strength and conditioning progression, including timing in training factors in exercise selection, and injury prevention.

KES 309 Prep For Personal Trn Cert (3) This course will provide information, expertise and practical experience to help prepare students to be pass the National Council On Strength and Fitness Personal Trainer Certification Exam. Pre: KES 260 and 261 or equivalent and KES 207.

KES 310 Basic Motor Learning (3) Basic understanding of the principles of motor learning and performance in a variety of contexts including teaching, coaching, design of performer-friendly equipment and work environments, and everyday motor skill learning.

KES 320 Drug Awareness (3) 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.

KES 330 Applied Motor Learning (3) Applying the principles of motor learning in different contexts such as teaching, coaching, design of performer-friendly equipment and work environments, rehabilitation, and everyday motor skill learning. Developing of motor learning programs. Pre: KES 310.

KES 334 Adv Care & Preventn Athlct Inj (3) An in-depth understanding and appreciation of the prevention, management, and care of athletic injuries. Application of tape and braces for prevention and management of injuries and first aid and CPR certification will also be covered. Pre: KES 234, BIOL 243-244 and BIOL 243L-244L.

KES 339 Athletics & Health in Hawai'i (3) This survey course examines the role of fitness/athletics and health-related activities in Hawaiian lifestyles, prior to foreign arrivals through to the late 20th century. The course also examines the consequences of political, economic, and cultural change on Native Hawaiian health-related activities and practices. (Same as HIST 339)

KES 340 Science: Diet & Weight Cntrl (3) This course presents a basic understanding of the multiple factors involved with body weight control and health. This course centers on the important scientific factors of body weight control, including energy balance, basal metabolism, hunger versus appetite, nutritional function and needs, nature versus nurture of obesity, treatment of obesity, physical activity and it's importance in weight control and maintenance. Eating disorders and medical interventions such as gastric bypass surgery will be presented.

KES 343 Musculoskeletal Anatomy (3) Basic understanding of human anatomy from the perspective of movement, with emphasis on the skeletal and muscular systems. Pre: BIOL 243-244 and BIOL 243L-244L.



KES 344 Musculoskeletal Physiology (3) Basic understanding of human musculoskeletal physiology from the perspective of internal function, with emphasis on aerobic and anaerobic metabolism during muscular function. Pre: KES 343

KES 348 Exercise Physiology (3) Basic understanding of human physiology and its response to exercise and adaptations to various types of training. Physiological systems are reviewed as they respond to acute bouts of exercise and long-term exposure to exercise. Pre: BIOL 125.

KES 350 Health Promotion Prog Planning (3) Student develop skills to effectively plan, design, implement, and evaluate health promotion programs in community/public health settings. Pre: KES 202

KES 351 Epidemiology (3) This course introduces students to epidemiology principles and methods. Topics covered include: measures of morbidity and mortality; vital statistics; incidence and prevalence measurements; adjustment of rates; measurements of risk; biological variability; screening; measurements of error; sampling; statistical significance; surveillance; study design; association and causation; and outbreak investigation.

KES 360 Olympism and Olympic Studies (3) This course aims to provide students with specialized knowledge on issues related to the Olympic Games and in particular on the values and meanings behind them. The course focuses on Olympism and the three pillars of the Olympic Movement: Education, Sports, and Culture.

KES 361 History of Sport (3) A history of sport from the ancient world to the present. Special attention to the history of sport in Europe and the Americas (Same as HIST 361)

KES 368 Sports and Exercise Nutrition (3) This course will introduce the student to the importance of nutrition in the field of exercise sciences. The purpose of this course is to bridge between nutritional concepts and exercise concepts, and the practical applications. Pre: KES 207.

KES 370 Sport Psychology (3) Survey of methods and findings in the application of psychological principles in sport. Topics include arousal and anxiety, cognitive processes, team performance, coaching behavior and techniques to maximize sports performance. (Same as PSY 370)

KES 380 Applied Sport Psychology (3) Based on the principles of sport and exercise psychology. Focus on methods and programs applying sport psychology in the field of health and physical education to enhance performance, adhere people to physical exercise programs and support the overall well-being. Pre: KES/PSY 370.

KES 440 Physiology of Aging (3) Study of the physiological mechanisms and the effects of aging on the human systems including the cardiopulmonary, musculoskeletal, neurological, sensory, metabolic, and endocrinological. This course will present the topic of physiology of exercise and aging. Pre: BIOL 125.

KES 443 Adapted Physical Education (3) Understanding the basics of various disabilities, how to assess the physical and motor skills of the disabled and how to develop individual activity programs for children and youth with disabilities.

KES 450 Health Promotion Practicum (3) A planned, supervised, and evaluated practice experience. The goal of the practicum is to provide an opportunity for students to synthesize, integrate, and apply practical skills, knowledge, and knowledge, and training learned through courses. Students will gain professional experience in a professional health work

environment, and work on health practice projects that are of particular interest to them. Pre: KES 202 and instructor consent. (Attributes: GCC)

KES 470 Physical-Occupational Therapy (3) The Purpose of this course is to introduce students who are interested in pursuing post-graduate degrees and professional careers in the fields of physical therapy and occupational therapy to these professions. This course is divided into three separate sections: The Profession; The Practitioner; and The Practice. Pre: KES 260 and KES 261, or BIOL 243 and BIOL 244.

KES 480 Sports Medicine (3) This course provides an opportunity for the study and application of the components of sports medicine, including, but not limited to: sports medicine related careers, organization, evaluation, and immediate care of athletic injuries, recognition, evaluation, and immediate care of athletic injuries, rehabilitation and management skills, emergency procedures, human anatomy and physiology, therapeutic modalities, and therapeutic exercise. Pre: KES 260 and KES 261, or BIOL 243 and BIOL 244.

KES x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KES x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Language (LANG) Courses

College of Arts and Sciences (CAS), Languages

LANG 198 Exp course in Language (1-6) Please contact the department or division office for more information about this course.

LANG 200 Intro to Jpns & Chns Studies (3) This course studies the two regions of East Asia (Japan and China) with emphasis on philosophical, religious and cultural traditions, and patterns of social, economic and political change. Students will gain a general understanding of each region through a broad survey of important cultural movements and historical events that have made Japan and China what it is today. (Same as JPST 200) (Attributes: GAHP, HPP)

LANG 410 History of Chinese Characters (3) This course introduces Chinese civilization and history through an investigation of the evolution of Chinesescript and the socio-cultural factors related to it. Archaeological and historical materials are used in introducing its various forms in history: from tortoiseshellscrip to seal and clericalscripts as well as regularscript. Historical and cultural setting of creating and using the specificscript are examined. The transformation of Chinesescript into Japanese "kanji" and cultural exchange between Asian countries are also discussed. Pre: one of the following: CHNS 101, CHNS 107, JPNS 101, JPNS 101S, or JPNS 107. (Same as CHNS/JPST 410) (Attributes: GAHP)

LANG x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

LANG x99 Directed Studies (Arr.) Statement of planned reading or



research required. Pre: instructor's consent.

Linguistics (LING) Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

LING 102 Introduction to Linguistics (3) A broad introduction to general linguistics: survey of phonology, morphological, syntactic, and semantic analysis, and historical and comparative linguistics. (Formerly LING/ ENG 203).

LING 133 Elem Indig Lang (3) Examine formal study of indigenous languages and issues of formal writing systems. For highly fluent native speakers, immersion school students, and others with similar levels of fluency. May be specific to language spoken or systematic attention to target skills with students speaking several different languages. A) Systematic for multiple languages, B) Navajo, C) Chuukese, D) Central Alaskan Yup'ik E) Samoan, F) Other. May be taken again if the sub-letters are different. Pre: LING 102 and fluency in an indigenous or minority autochthonous language appropriate to the sub-letter. NOTE: Fluency in Hawaiian cannot be used to enroll in sub-letter A of this course.

LING 221 Intro to Language (3) 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 221)

LING 233 Inter Indig Langs (3) Continuation of LING 133. A) systematic for multiple languages, B) Navajo, C) Chuukese, D) Central Alaskan Yupik, E) Samoan, F) Other. May be taken again if the sub-letters are different. Pre: LING 133 with same sub-letter.

LING 311 Phonetics and Phonology (3) Provides a conceptual framework and practical skills to engage in work in phonetics and phonology. Course includes training in the production and perception of speech sounds, as well as the physiological and acoustic description of them. Students learn IPA transcription symbols and practice analyzing phonological data based on the languages of the world. Pre: LING 102 or 121 or instructor's consent.

LING 320 Hist Of The English Lang (3) 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 instructor's consent. (Same as ENG 320)

LING 321 Morphology And Syntax (3) 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 102 or instructor's consent. (Same as ANTH 321 and ENG 321)

LING 324 Modern English Grammar (3) 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 221, or instructor's consent. (Same as ENG 324)

LING 331 Lang in Culture & Society (3) An examination of the articulation of language in social and cultural context, including topics relevant to sociolinguistics and ethnolinguistics. Pre: ANTH/LING 221 or LING 102 or instructor's consent. (Same as ANTH 331)

LING 333 Psycholinguistics (3) Theory and method in the

investigation of the relationship between language and cognition, first and second language acquisition, speech pathologies. Pre: LING 102 or PSY 100 or instructor's consent. (Same as PSY 333)

LING 344 Children And Language (3) Strategies of language acquisition used by children; emphasis on investigative skills and methods, including some field work. Pre: LING 102 or ANTH/LING 221.

LING 345 Historical & Comparative Ling (3) This course provides an introduction to the principles of historical linguistics beginning with a survey of the features of the world's language families. A problem-solving approach is adopted as students learn the comparative method of reconstruction and actually engage in the linguistic reconstruction of protolanguages.

LING 347 Pidgins And Creoles (3) 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 of Hawaiian Creole English to other Creoles in the world; the link between the development of a Creole and language acquisition. Recommended: LING 102 or 121. (Same as ANTH 347 and ENG 347) (Attributes: GAHP)

LING 350 Second Lang Acquisition Theory (3) Current research and theories of learning a second or additional language from social, psychological and linguistic perspectives. Topics include the attainment of communicative competence, the critical period hypothesis, focus on form, individual learning styles, and learner autonomy. The emphasis is on how the knowledge of second language acquisition theory helps improve the quality of classroom language teaching. Pre: LING 102 or instructor's consent. (Same as ENG 350)

LING 351 Method Foreign Lang Tchg (3) 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 instructor's consent.

LING 356 Language and Gender (3) Students engage in the analysis of gender as it relates to language and society. Provides students with analytic resources for thinking critically about the relationship between language and social practice. Students gather and analyze data based on current theories. Pre: ENG/ESL 100 or 100T and LING 102, or instructor's consent. (Same as ENG 356 and WS 356)

LING 410 Semantics & Pragmatics (3) Introduction to the fundamentals and modern theories of meaning, reference and the relations between language and knowledge of the world. Ways in which the interpretation of sentences in natural languages depends upon the literal meaning of propositions and their logical (semantic) and contextual (pragmatic) inferences. Pre: LING 102 or instructor's consent.

LING 412 Discourse Analysis (3) This course examines the structure of function of language as its actually used in different contexts, including newspaper articles, poetry, doctor-patient interactions, news broadcasts, classrooms, and court trials. Students also gain experience in gathering, presenting, and analyzing their own data.

LING 432 Critical Applied Linguistics (3) This course examines issues in applied linguistics such as language teaching, language learning, language policy, language ideology, linguistic human rights, and linguistic imperialism by considering indigenous language situations, dominant and minority languages as well as the notion of English as global language in order to appreciate the complex relationship between language and power. (Attributes: ALEX, GCC)

LING 434 Indigenous Languages of the US (3) This course surveys



Indigenous languages of the US and the communities that speak them, focusing on a representative sample for closer study. The role of languages in maintaining cultural identity is examined and prospects for the future of Indigenous languages are assessed. Pre: LING 102

LING 442 Languages in Hawai'i (3) This course explores the linguistic situation of Hawai'i with a focus on the history, structure, and political situation of the diverse set of languages spoken in the Islands. Languages to be examined include, but are not limited to, Hawaiian, Hawaiian Creole English, Japanese, Chinese, Ilocano, Portuguese, and Korean. Pre: LING 102 (Attributes: ALEX, GCC, HPP)

LING 445 Explor Bilingual & Immers Ed (3) This course serves as a capstone course in Linguistics, offering students the opportunity to engage in in-depth research on a linguistics topic of their choice. Students first read articles and write reaction papers to those articles, then write a proposal describing and defending their topic choice, and next engage in research on their topic and produce an outline of their final paper. Then, at the conclusion of the semester, students present their papers to their peers and faculty and submit a research paper of at least 15 pages. Pre: LING 102, 311, and LING 321.

LING 451 Structure Of Japanese I (3) Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202 or instructor's consent. (Same as JPNS 451) (Attributes: GAHP)

LING 452 Structure Of Japanese II (3) Phonology, morphology, syntax of modern colloquial grammar. Pre: LING 102 and JPNS 202 or instructor's consent. (Same as JPNS and JPST 452) (Attributes: GAHP)

LING 490 Res and Methods in Linguistics (3) This course serves as a capstone course in Linguistics, offering student the opportunity to engage in in-depth research on a linguistic topic of their choice. Students first read articles and write reaction papers to those articles, then write a proposal describing and defending and their topic choice, and next engage in research on their topic and produce an outline of their final paper. Then, at the conclusion of the semester, students present their papers to their peers and faculty and submit a research paper of at least 15 pages. Pre: LING 102, 311 and 321. (Attributes: ALEX)

LING x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

LING x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Management (MGT) Courses

College of Business and Economics (COBE)

MGT 300 Mgt, Orgs & Human Behavior (3) Survey of classical and modern management theory and practice. Management implications of organization theory. Basic concepts in work motivation, communication, group dynamics, leadership, organizational change, conflict, personality, and leadership. Pre: Admission to Professional Business Program, C or better in QBA 260 Business Statistics (3), ENG 209 Writing for Business (3) or 287 or 215 or 225 or COM 240 Professional Communication (3)/WI, and C or better or concurrent enrollment in BUS 290 Critical Thinking (3).

MGT 330 Human Resource Mgt (3) 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: Admission to Professional Business Program, C or better in MGT 300, and junior standing.

MGT 332 Org Behavior & Manage (3) 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: Admission to Professional Business Program, C or better in MGT 300, and ENG 209, 215, 225, or 287

MGT 333 International Business Mgt (3) 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: Admission to Professional Business Program, C or better in ECON 130 or permission of instructor (Attributes: GAHP, HPP)

MGT 341 Project Management (3) This course focuses on the technical and social aspects of project management. The basic principles of project management will be introduced to prepare students for possible Project Management Institute (PMI) certification. Topics covered include contract proposal, project definition and planning, identification and sequencing of project deliverables, automated scheduling, resource planning, cost estimation and budgeting, risk analysis, project tracking, building a project team and strategic issues of project management. Students will be assigned to teams to complete a project. Pre: Admission to Professional Business Program and C or better in CS 201 or QBA 362.

MGT 379 Hist Of Entrepreneurship in Am (3) The role of entrepreneurship in developing the American business system from its European origins to its current global manifestations and its future prospects. Focus on the values, characteristics, and practices of entrepreneurs and on the changing relations over time between business, labor and government. Pre: Admission to Professional Business Program. (Same as HIST 379)

MGT 423 Business & Society (3) Impact of business on society and the impact of the societal environment on business operations and decision making. Pre: Admission to Professional Business Program, C or better in BUS 240, and C or better in MGT 300. (PHIL 323 may be substituted for this course in the professional core.)

MGT 425 Bus Planning for New Ventures (3) Development of a business plan for a new venture with attention to form of business organization; competitive advantage; accounting systems and controls; financial, marketing, human relations, operations and risk management; government regulation and compliance; social responsibility. Identification of sponsors and sources of help for small business. Pre: Admission to Professional Business Program, C or better in any 200-level ENG course, C or better in ECON 130 or BUS 100, and C or better QBA 260. (Attributes: ALEX, GCC)

MGT 490 Strategic Mgt (3) 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: Admission to Professional Business



Program, C or better in BUS 290, MGT 300, QBA 300, MKT 310, FIN 320 and senior standing.

MGT x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

MGT x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Marine Science (MARE) Courses

College of Arts and Sciences (CAS)

MARE 100 Marine Option Program Seminar (1) (other) Orientation to the Marine Option Program with statewide overview of ocean issues and organizations involved with marine activities, management, education, research, and business. Exploration of opportunities for internships, research projects, independent study and careers. Portions on HITS with participation of students and faculty from throughout the UH system. CR/NC only. Repeatable one time.

MARE 101L Intro Marine Sci Field Lab (2) (lab) A basic introduction to field techniques in marine science including: the use of marine charts, measuring bathymetry, marine sediment sampling, techniques for measuring salinity, temperature, and ocean circulation, plankton sampling and identification, marine fishes and invertebrates, and marine wildlife management techniques used in tagging sea turtles. Field trips required.

MARE 103 Marine Option Program Proposal (2) Introduction to the fundamentals of proposal writing and project development. Students will incorporate topics from MARE 100, identify a faculty mentor, and expand the project into a written proposal. This proposal is a prerequisite for the completion of a marine skills project required for the Marine Option Program Certificate. Pre: MARE 100 or instructor's consent.

MARE 104 Marine Option Program Project (2) Fundamentals of proposal writing and project development. Students assistance of a mentor and MOP coordinators. This course will provide strategies, methods, and techniques for successful project completion. Pre: MARE 100 or instructor's consent. Repeatable twice for a maximum of 6 credits.

MARE 105 Marine Option Presentation (1) A continuation of the marine skills project completed in MARE 104. Students expand their marine skills project, required for the Marine Option Program Certificate, into an oral or poster to be presented at the annual MOP symposium. This course will provide instruction on creating effective presentations, developing scientific posters, and explaining scientific results to both peers and the general public. Pre: MARE 100, MARE 103, MARE 104, or instructor's consent.

MARE 110 Current Issues in Marine Sci (3) Introduction to marine science via the controversies and problems facing our ocean environment. Topics may include coastal population growth, sonar, fisheries, dolphin-safe tuna, cruise ship waste, global warming, mercury in fish, beach erosion, alien species, and coral reef decline. Designed for non-majors. This course applies toward general education requirements in the Natural Sciences.

MARE 140 Intro to Hawaiian Coral Reefs (3) Explore the underwater world of the Big Island of Hawai'i while learning about unique marine ecosystems found nowhere else on Earth. Students will acquire an appreciation for local aquatic fauna in the classroom including the basics of marine biology and natural history. Pre: concurrent enrollment in MARE 140L required. (Attributes: GAHP, HPP)

MARE 140L Intro Hawaiian Coral Reefs Lab (1) (lab) Students will enter the natural laboratory that is Hawai'i and investigate coral reefs, coastal beaches and tide pool systems with mask, snorkel and fins. Learn to identify common marine inhabitants while enjoying an unparalleled educational experience under the sea. Concurrent enrollment in MARE 140 is required. (Attributes: GAHP, HPP)

MARE 156 Nat Hist & Conservatn Hawn Isl (3) The formation of the Hawaiian Islands, establishment and evolution of their native terrestrial and marine flora and fauna, and human impacts and conservation. (Same as BIOL 156). (Attributes: GAHP, HPP)

MARE 171 Marine Biology-Diversity (3) Marine organisms: classification, structure, physiology, ecology and adaptations to the marine environment. This course satisfies College of Arts and Sciences General Education Natural Science requirement.

MARE 171L Marine Biology Laboratory (1) (lab) Provide students with direct exposure to the biota of Hawai'i via laboratory and field trips to sites around Hilo. The course focuses on identification, natural history, and ecology of common marine organisms. Pre: Current or previous enrollment in MARE 171.

MARE 172 Marine Biology-Cellular Proc (3) Introduction to the fundamentals of biology as they pertain to marine organisms. Principles of cell biology, molecular biology and biochemistry. Focuses are biological molecules, prokaryotic and eukaryotic cell structure and function, basic metabolism, and cellular processes. Emphases will be given to cellular level adaptations to marine environment. Pre: High school Biology; or BIOL 101 and high school Chemistry; or CHEM 151 recommended.

MARE 201 Oceanography (3) 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. Pre: Two high school or college science courses recommended.

MARE 201L Oceanography Lab (2) (lab) 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, light and sound in seawater, wave dynamics, tides, plankton sampling and identification. In-class field trips required. Pre: Concurrent or previous enrollment in MARE 201.

MARE 240 Small Boat Operations/Research (3) (lecture/lab) This course is intended to provide the novice boater with skills needed to safely operate and conduct research from a small boat. Topics include: state and federal regulations, safety, navigation, small boat handling, and conducting research operations. The course will consist of lectures, lab sessions, and time on the water in a small boat. Participants must be able to swim. Pre: Instructor's consent.

MARE 250 Statistical Apps in Marine Sci (3) Hands-on approach to designing field experiments, collection of ecological data, analysis of data on computers using statistical methods, and presentation of results.



Requires completion of a project using data collected in the field followed by the preparation of both written and oral reports. Pre: MARE/BIOL 171 or MARE 201, or instructor's consent.

MARE 264 Quest (3) 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. Pre: Authorization as a scientific diver in training before start of course and instructor's consent.

MARE 265 Marine Ecology and Evolution (3) Principles of ecology and evolution for Marine Science majors stressing integrative approach and recent advances. Topics include but are not limited to evolutionary mechanisms, macroevolution, systematics and the origin of life, population and community ecology and ecological processes, marine communities, dispersal, biodiversity and biogeography. Pre: MARE 171/171L, MARE 172 and MARE 201 or instructor's consent.

MARE 282 Global Change (3) 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.

MARE 282L Global Change Lab (1) (lab) 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: MARE 282 or concurrent enrollment.

MARE 310 The Atoll Ecosystem (3) 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 instructor's consent. (Attributes: GAHP, HPP)

MARE 325 Coral Reef Ecology (3) Provides a background in evolutionary and natural history of tropical reefs, coral reef community structure and interactions, and coral reef ecosystem processes/functions. Students will learn ecology of Hawaiian and global coral reefs. Students will review information on the increasingly important conservation issues related to tropical reef systems and review present management strategies employed. Pre: C- or better in MARE 265 or instructor's consent.

MARE 350 Coastal Methods and Analyses (3) Planning of field and laboratory data collection and experimentation in the coastal environment. Course covers hypothesis development, experimental design, statistical analysis of data, data interpretation, scientific writing, and presentations. Pre: junior standing; a grade of C- or better in MARE 201, BIOL/ MARE 250; MARE 265; CHEM 162, and must be taken concurrently with MARE 350L. Offered Fall semester only.

MARE 350L Coastal Methods & Analyses Lab (2) (lab) Implementation of field and laboratory data collection and experimentation in the coastal environment. Techniques include measuring geological, chemical and physical coastal properties; estimating the abundance and diversity of plankton, nekton, and benthos; and use of modern data recording and analyzing systems. Pre: junior standing; a grade of C- or better in MARE 201, BIOL/MARE 250; MARE 265; CHEM 162; must be taken concurrently with MARE 350. Offered fall semester only.

MARE 353 Pelagic Methods and Analyses (3) Planning of field and

laboratory data collection and experimentation in the neritic and pelagic marine environment from an oceanographic vessel platform. Course covers hypothesis development, experimental design, statistical analyses of data, data interpretation, scientific writing, and presentations. Pre: junior standing; a grade of C- or better in MARE 201; BIOL/MARE 250; MARE 265; CHEM 162; must be taken concurrently with MARE 353L. Offered Spring semester only.

MARE 353L Pelagic Methods & Analyses Lab (2) (lab)

Implementation of field and laboratory data collection and experimentation in the neritic and pelagic marine environment from an oceanographic vessel platform. Techniques include measuring geological, chemical, and physical properties; estimating the abundance and diversity of plankton, nekton and benthos; and use of modern data recording and analyzing systems. Pre: junior standing; C- or better in MARE 201; BIOL/MARE 250; CHEM 162; MARE 265. Must be taken concurrently with MARE 353. Offered Spring Semester only.

MARE 360 Marine Resources (3) 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 Islands and waste disposal in the sea. Pre: MARE 201 or BIOL/MARE 171, or instructor's consent. (Same as BIOL 360)

MARE 364 Advanced Quest (3) 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: BIOL/MARE 264, authorization as a scientific diver in training before start of course, and instructor's consent. Student receives CR/NC for the course.

MARE 366 Trop Marine Research Investiga (3) 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: instructor's consent (Same as BIOL 366).

MARE 371 Biology Of Marine Invertebrate (3) 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: MARE 265 or BIOL 172 or equivalent, and concurrent enrollment in MARE 371L. (Same as BIOL 371)

MARE 371L Bio Of Marine Invertebrate Lab (1) (lab) The course will provide direct exposure to the major groups of invertebrates in the marine environment through laboratory exercises and field trips around the island. Students will learn to identify and classify invertebrates and will survey the anatomy and natural history of the major groups. (Same as BIOL 371L).

MARE 372 Biology Of Marine Plants (3) 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 171 or BIOL 171 or instructor's consent. Concurrent enrollment in MARE 372L.

MARE 372L Biology of Marine Plants Lab (1) (lab) Laboratory activities relating to the taxonomy, biology, chemistry, physiology and human uses of seaweeds and seagrasses. Includes field trips. Pre: concurrent enrollment in MARE 372.



MARE 380 Nat. Hist. of Sharks and Rays (3) This course will examine the natural history of the Elasmobranchs, an ancient group of fishes that have existed for almost 450 million years. Comprehensive investigations of sharks, rays, skates, sawfishes, and chimera, along with representative species from Hawai'i, will be conducted. Subjects will include evolution, taxonomy, anatomy, physiology, ecology, conservation and management of these unique animals. Discussions of current research papers along with group research projects will be covered during lectures. Pre: MARE 171 or instructor's consent.

MARE 380L Nat. Hist. of Sharks Lab (1) (lab) This course will further examine Elasmobranchs using a hands-on approach to compliment the work done in Lecture using both laboratory and field-based activities. Laboratory sessions will involve detailed dissections of shark, ray, skate, and chimera functional anatomy. Students will also participate in a tagging study of coastal shark species throughout the Big Island of Hawaii. Pre: Concurrent enrollment in MARE 380.

MARE 390 Biology of Marine Mammals (3) Comprehensive investigation of a diverse group of highly adapted marine vertebrates. Whales, dolphins, porpoises, seals, sea lions, walrus, manatees, dugongs, sea otters and polar bears will be covered. Focus will be on taxonomy, anatomy and physiology, behavior, reproductive ecology, adaptations to the marine environment, and conservation and management. Pre: MARE 171 or instructor's consent.

MARE 390L Biol of Marine Mammals Lab (1) (lab) Field and lab techniques employed by professional marine mammal biologists including shore and boat-based surveys, photo-identification, and acoustic sampling. Investigations will focus on local species of marine mammals. Pre: MARE 390 or concurrent enrollment.

MARE 405 Watersheds (3) This course is designed to provide a mountain to ocean overview of tropical and temperate watersheds with regards to their hydrology, geology, biogeochemistry, and ecology, as well as their function in maintaining environmental quality in freshwater, coastal, and marine ecosystems. Natural and human disturbances to watersheds will be examined, as well as their impacts on watershed function and downstream riparian, coastal, and marine environments. Restoration and management of watersheds to improve freshwater and coastal environmental quality will be discussed. Pre: CHEM 162.

MARE 410 Marine Debris in the Pacific (3) Scientific study of marine debris issues in the Pacific Ocean, including sources, dispersal, distribution, degradation, effects, persistent organic pollutants, plastic additives, monitoring efforts, and solutions. Pre: MARE 171 and MARE 201, or instructor's consent. (Attributes: GAHP)

MARE 425 Chemical Oceanography (3) Chemical processes occurring in marine and estuarine waters and their impact on the near shore and oceanic environments. Topics include: salinity, chlorinity, major and minor elements, and dissolved gases in seawater; macro and micronutrients, dissolved and particulate organic matter; geochemistry of marine sediments; radiometric dating and stable isotopes as water mass tracers. Pre: C- or better in CHEM 162 and MARE 201.

MARE 434 Teaching Marine Science (3) Marine science concepts and teaching strategies for pre-service and inservice teachers. Includes geological, chemical, physical and biological topics. Pre: MARE/BIOL 171, MARE 201, and MARE 265. (Attributes: ALEX, GCC)

MARE 435 Marine Field Experiences (3) (other) 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, MARE 201, and MARE 265.

(Attributes: ALEX, GCC)

MARE 440 Physical Oceanography (3) Topics in physical oceanography include: distribution of water characteristics in the ocean; dynamics of circulation; water masses; wave characteristics including formation, propagation, dispersion and refraction; dynamic and equilibrium theories of tides as well as tsunami, seiche, and internal waves; sound and optics; and the latest methods and instrumentation in physical oceanography. Pre: MARE 201, MATH 205, PHYS 170/170L, or PHYS 151/151L, and instructor's consent. Recommended: MATH 206.

MARE 444 Biological Oceanography (3) This course focuses on the interaction of phytoplankton, zooplankton, and pelagic organisms in the open ocean environment. Students will learn aspects of plankton taxonomy, physiology, and pelagic population dynamics. Students will survey the current research status of the field using primary literature. The student's knowledge will then be applied to the study of local and global productivity and trophodynamics. Pre: junior standing, MARE 265 and CHEM 162 or instructor's consent.

MARE 445 Marine Microbial Ecology (3) Marine microorganisms in a diversity of roles within the marine environment including microbial food webs, biogeochemical cycling, symbioses as well as host-pathogen interactions, extreme environments and bioremediation. Microbial interactions in tropical and temperate systems are presented. Pre: MARE 265 or instructor's consent.

MARE 446 Phytoplankton (3) Phytoplankton are the microbial primary producers in marine ecosystems and are sensitive indicators of the ecosystem change. The lecture section will give students baseline information on phytoplankton ecology and their roles in marine ecosystems. We will also discuss phytoplankton in the context of global environmental change. Corequisite: 446L. Pre: MARE 250 and MARE 265.

MARE 446L Phytoplankton Ecology Lab (2) (lab) Phytoplankton are the microbial primary producers in marine ecosystems and are a sensitive indicator of ecosystem change. This laboratory and field-based course will give students hands-on experience with the theory and techniques of phytoplankton ecology. Corequisite: MARE 446. Pre: MARE 250 and MARE 265.

MARE 460 Marine Conservation (3) Concepts and issues in marine conservation and marine resource management. Topics include resource exploitation, invasive species, eutrophication, marine pollution and global climate change. Ecological impacts of resource depletion, environmental modification, and biodiversity loss will be discussed along with methods used to address impacts. Pre: C- or better in MARE 265 or instructor's consent.

MARE 461 Geological Oceanography (3) A detailed study of the ocean floor to include marine stratigraphy, plate tectonics, oceanic sediments and paleoceanography. Pre: MARE 201, GEOL 111 and one of CHEM 161, 162 or MARE 440, or instructor's consent.

MARE 470 Senior Thesis Research (3) (other) 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, collect and record data and present preliminary results. Pre: MARE 265, MARE 350 or 353 and ENG 225 or instructor's consent.

MARE 471 Senior Thesis Report (3) (other) Second-semester continuation of MARE 470. Students finish their research projects and prepare a final oral and written report. Pre: MARE 470. (Attributes: ALEX,



GCC)

MARE 480 Senior Internship (3) Applications of knowledge and skills in public, private, or government agency involved in marine science education or research. Pre: junior or senior class standing, instructor's consent, and preapproved placement. (Attributes: ALEX, GCC)

MARE 484 Biology Of Fishes (3) 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, genetic interrelationships. Pre: C- or better in MARE 171 or BIOL 172 or their equivalent; C- or better in MARE 265 or equivalent; or instructor's consent. (Same as BIOL 484)

MARE 484L Biology Of Fishes Laboratory (1) (lab) 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).

MARE 488 Kuula: Integrated Science (3) This course will compare content, context, and methodology of Native Hawaiian and Western sciences and explore ways to apply both to understand the environment of Hawaii. Students will be exposed to scientific knowledge and endeavors of Native Hawaiians through field trips and will also explore ways to integrate sciences to address research and management issues facing Hawaii today. Pre: MARE 250 or equivalent and instructor's consent. (Attributes: ALEX, GCC)

MARE 490 Sea Turtle Conserv & Ecology (3) All-encompassing look at the natural history of these ancient marine vertebrates. Topics include investigations of sea turtles, sea snakes, saltwater crocodiles and marine iguanas throughout the world. Subjects will consist of conservation and management, human impacts, reproductive and feeding ecology, evolution, taxonomy, and anatomy and physiology of these unique marine animals. Pre: MARE 265 or equivalent or instructor's consent.

MARE 490L Sea Turtle Conserv & Ecol Lab (1) (lab) Field and lab techniques employed by sea turtle biologists including shore and underwater photo-surveys, forage surveys, and evaluation of nests and hatchlings. Investigations will focus on local species of sea turtles. Pre: MARE 490 or concurrent enrollment.

MARE 495 Senior Seminar (3) (other) Lectures, discussions, and research reports of topics in marine science presented by faculty, students, invited speakers, and visiting scholars. Students will be expected to present a seminar, as well as participate in other course activities. Pre: senior standing or instructor's consent. (Attributes: GCC)

MARE 496 Tchg Asst & Tutorng in Mare (1-3) (lab) Practice in individual tutoring, and in the preparation of the selected topics in Marine Science lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used to replace any specific course or elective requirements of the Marine Science major. Pre: supervising instructor and department chair consent.

MARE x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

MARE x99 Directed Studies (Arr.) Statement of planned reading or

research required. Pre: instructor's consent.

Marketing (MKT) Courses

College of Business and Economics (COBE)

MKT 310 Princ of Marketing (3) Fundamental marketing concepts and contemporary marketing issues are analyzed within present economic, social and legal environments; consumer and functional analysis are emphasized. Pre: Admission to Professional Business Program, C or better in ECON 130, ACC 201 and BUS 290.

MKT 311 Marketing Management (3) Planning, evaluation, and control of the marketing function. Procedures for developing the analysis and solution to common marketing management problems involving pricing, distribution, product development and promotion. Pre: Admission to Professional Business Program, and MKT 310.

MKT 313 Promotional Strategy (3) 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: Admission to Professional Business Program, MKT 310 and junior standing.

MKT 315 Consumer Behavior (3) An integrated framework for understanding consumer behavior from a marketing perspective. Course focuses on environmental issues, as well as consumer decision processes. Pre: Admission to Professional Business Program and MKT 310.

MKT 318 Internet Marketing (3) Marketing principles applied to Internet commerce. This course examines the tools and techniques currently used to harness the potential of the Internet. Internet marketing strategies that effectively blend the product, price, distribution channels and communication variables will be discussed along with the use of relationship marketing through on-line strategies. The preparation and use of an Internet marketing plan will be developed through case studies and/or student projects. Pre: Mgt 235 or Mkt 310.

MKT 319 Market Research (3) 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: Admission to Professional Business Program, MKT 310 and QBA 260.

MKT 333 International Marketing (3) Focused on identifying and satisfying global customer needs better than the competition, both domestic and international, and coordinating marketing activities within the context of the global environment. Pre: Admission to Professional Business Program, MKT 310, or instructor's consent. (Attributes: GAHP)

MKT 351 Personal Selling (3) This course includes the principles of personal selling for both industrial and retail sales persons covering topics of prospecting, approaching, presenting, closing and follow-up. A major emphasis is placed on understanding the customer's needs and contributing to the success of the customer, with a focus on building long-term relationships based on trust. Pre: MKT 310 and Admission to Professional Business Program.



MKT x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

MKT x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Mathematics (MATH) Courses

College of Arts and Sciences (CAS)

MATH 100 Survey Of Math (3) Survey of Mathematics course is intended primarily for non-science liberal arts majors to satisfy the university's quantitative reasoning requirement. Core topics include mathematical logic and mathematical thinking and problem solving. Additional topics may include number systems, computers, algebra, and probability. Pre: None.

MATH 103 Intro to College Algebra (3) For students who need to improve algebraic skills prior to taking Pre-calculus or Applied Calculus, or for courses in Introductory Chemistry, Physics or Statistics. Topics include exponents and radicals, factoring, systems of equations, linear equations, quadratic equations, general properties of functions, graphing, polynomial functions, exponential and logarithmic functions.

MATH 111 MS Office Tools for Math & Sci (3) Use of symbols, equations, images in scientific documents. Computations using spreadsheets with sums, averages, and scientific functions. Data analysis curve fitting, interpolation, statistics. Data presentation: visualization, charts, and graphs. Symbolic computation. Database processing: forms, queries, reports, VBA. Additional topics chosen from: real-time data acquisition, more advanced statistical methods, system simulation. Intended for science majors. Pre: Recommendation in Math Placement Test. (Same as CS 102)

MATH 121 Intro Stats & Prob (3) Utilizes basic statistical topics including measures of central tendency and dispersion, classification of variables, sampling techniques, elementary probability, normal and binomial probability distributions, tests of hypothesis, linear regression and correlation to solve programs.

MATH 125 Applied Calculus (3) The course emphasis is on computations and applications to Business and Life Sciences. Topics include derivatives, curve sketching, optimization, exponential and logarithmic functions, integration and applications in these areas. Pre: C or better in MATH 103, or recommendation from the Math Placement Test. (Previously offered as MATH 115)

MATH 135 Precalc: Elementary Functions (3) Investigates linear, quadratic, polynomial, rational, exponential, logarithmic functions, and relevant topics. This course is the first part of the precalculus sequence. Pre: C or better in MATH 103, or an appropriate recommendation on the Math Placement Test. (Previously offered as MATH 104F)

MATH 140 Precalc:Trig/Analytic Geometry (3) Studies trigonometric functions, analytic geometry, polar coordinates, vectors, and related topics. The course is the second part of the precalculus sequence. Pre: C or better in MATH 135, or an appropriate recommendation on the Math Placement Test. Previously offered as MATH 104G

MATH 140X Precalculus (4) MATH 140X is an accelerated one semester course on the material covered in the sequence 135-140. Topics include the essential pre-calculus skills needed for success in calculus: functions, with special attention to polynomial, functions; plane trigonometry; and polar coordinates. Credit may not be earned for both MATH 140 and MATH 140X Pre: B+ or better in MATH 103, or C or better in Math 135, or an appropriate recommendation on the Math Placement Test. (Previously offered as MATH 104)

MATH 205 Calculus I (4) First half of a standard first year calculus sequence intended primarily for Natural Science majors. Topics include differential calculus, applications, and an introduction to integration. Pre: C or better in MATH 140X or MATH 140, or an appropriate recommendation on the Math Placement Test.

MATH 206 Calculus II (4) Second semester of a standard first year calculus sequence intended primarily for Natural Science majors. Topics include applications of the definite integral, techniques of integration, an introduction to differential equations, and infinite series. Pre: C or better in MATH 205.

MATH 231 Calculus III (3) Introduction to calculus of functions of several variables. Topics include partial differentiation; gradient, divergence, curl, and multi-variable optimization. Pre: C or better in MATH 206.

MATH 232 Calculus IV (3) Introduction to calculus of functions of several variables. Topics include multiple integrals, line integrals, and surface integrals; Green's Theorem and Stoke's Theorem. Pre: C or better in MATH 231.

MATH 300 Ordinary Diff Equations (3) 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 MATH 206.

MATH 301 Partial Differential Equatns (3) Construction and behavior of solutions of partial differential equations in physical and engineering applications, classical equations of mathematical physics, initial and boundary value problems, and eigenvalue problems. Pre: C in MATH 300 and MATH 231. Recommended: MATH 232 or concurrent.

MATH 303 Complex Variables W/ Apps (3) An introduction to the theory of functions of a complex variable. Complex differentiation and the Cauchy-Riemann equations. Analytic functions, conformal mappings, and Laurent series. Cauchy's Theorem, residue theory, and their applications. Additional topics include Riemann surfaces and the algebraic closure of the complex numbers. Pre: C or better in MATH 231. Recommended: C or better in MATH 232.

MATH 310 Discrete Mathematics (3) Topics from discrete mathematics, including logic, proof techniques, recurrence relations, set theory, combinatorics, relations, functions, graphs, Boolean algebraic structures and applications to coding theory. Pre: C or better MATH 206

MATH 311 Intro Linear Algebra (3) Algebra of matrices, linear equations, vector spaces, linear transformations, eigenvalues and eigenvectors, diagonalization and basic applications. Pre: C in MATH 206.

MATH 314 Topology (3) A study of topological spaces and their continuous functions. A focus on properties of topologies, including compactness, Hausdorff, and connectedness. The construction of topologies, including the metric, quotient, product, and subspace topologies. Additional topics include manifold theory and functional analysis. Pre: C or better in MATH 231.



MATH 317 Intro To Theory Of Equations (3) Algebraic systems as related to solutions of polynomial equations, division algorithms and factorization for polynomials and integers, fundamental theorem of algebra, and related topics from elementary number theory including linear congruencies and rings of residue classes. Pre: C or better in MATH 310 or instructor's consent.

MATH 360 Mathematical Physics (3) Special functions of mathematical physics which arise from Sturm-Liouville equations: Bessel, beta, elliptical, gamma and Legendre functions. Generating functions, complex integral representations. Other topics may include integral transforms, Fourier analysis and linear algebra. Pre: MATH 232, or MATH 231 and 300. (Same as PHYS 360)

MATH 380 Chaos (3) An introduction to nonlinear dynamical systems for science majors. Topics include dynamics in one and several dimensions, stability, excitable media, fractals, and time series analysis. Applications in physics, chemistry, ecology and other fields are illustrated. Pre: C or better in MATH 206 and C or better in PHYS 272 or Math 232. (Same as PHYS 380)

MATH 407 Intro To Numerical Analysis I (3) 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 MATH 206 and MATH 311 and programming experience. (Same as CS 407).

MATH 408 Intro To Numerical Analysis II (3) 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 MATH 407. (Same as CS 408).

MATH 421 Elem Probability Theory (3) Sets, sample spaces, combinatorial probability, random variables, mathematical expectation, classical distributions, applications. Pre: C or Better in MATH 206 Calculus II (4).

MATH 422 Elementary Math Statistics (3) Statistical inference, estimation, hypothesis testing, regression, correlation, introduction to analysis of variance. Pre: C in MATH 421 or instructor's consent.

MATH 431 Real Analysis I (4) This course covers classical analysis concepts and theorems, including the topology of the real numbers and higher dimensional Euclidean spaces, convergence, continuity, uniform and pointwise convergence, differentiability, and integration. Pre: C or better in MATH 310. Recommended: Math 314, PHIL 345.

MATH 432 Real Analysis II (4) This course is a continuation of MATH 431, classical analysis concepts and theorems, including the topology of the real number and higher dimensional Euclidean spaces, convergence, continuity, uniform and pointwise convergence, differentiability, and integration Pre: C or better in MATH 431.

MATH 441 Geometry I (3) The course is specifically designed for future Math teachers. Emphasis is equally split between content and pedagogy of teaching high school Geometry. Topics include: foundations of Geometry, formal direct and indirect geometric proofs, geometric constructions, Euclidean Geometry in 2D and 3D. Pedagogy topics include: learning and practicing different teaching methods and techniques, developing lesson plans, teaching experience in a real classroom environment. Pre: C in MATH 231 and MATH 311 or instructor's consent.

MATH 442 Geometry II (3) Axiomatic system-independence and

consistency, advanced concepts in Euclidean geometry, elements of non-Euclidean geometries: spherical, elliptic, hyperbolic, introduction to classical Riemann geometry and modern geometry of manifolds. Pre: C or better in MATH 441 or instructor's consent.

MATH 454 Modern Algebra I (3) Theory of groups, rings, and fields. Polynomial rings, unique factorization, and Galois Theory. Pre: C or better in MATH 310 and MATH 311 or instructor's consent. Recommended: MATH 317 and PHIL 345.

MATH 455 Modern Algebra II (3) This course is a continuation of Modern Algebra I. Pre: C or better in MATH 454.

MATH 495A Seminar (1) (other) 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.)

MATH 495B Seminar (1) (other) 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 instructor's consent. (Same as ASTR 495A-495B, GEOL 495A-495B, CHEM 495A-495B, and PHYS 494A-494B).

MATH 496 Tchg Assist & Tutoring Math (1-3) Practice in individual tutoring and in the preparation of the selected topics in mathematics lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used for substitution for any specific course or elective requirements of Mathematics major. Pre: consent of the supervisor and the department chair.

MATH x94 Special Topics in Subject Matter (Arr.) (IO) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

MATH x99 Directed Studies (Arr.) (IO) Statement of planned reading or research required. Pre: instructor's consent.

Music (MUS) Courses

College of Arts and Sciences (CAS)

MUS 102 University Chorus (3) Large ensemble singing of various genres of choral music including classical, choral/orchestral, traditional, and world. Study of composers and compositional styles from selected periods of music. Public performance required. No audition required. May be repeated for credit as many times as desired.

MUS 123 Elementary Voice Class I (1) Fundamentals of voice production applied to vocal literature at elementary level.

MUS 124 Elem Voice Class II (1) A continuation of MUS 123. Refinement of vocal skills; study and performance of vocal literature in English and other languages. Pre: MUS 123.

MUS 125 Class Piano I (1) 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.

MUS 126 Class Piano II (1) A continuation of MUS 125. Application of harmonic concepts and basic keyboard techniques. Expanding repertoire of pieces at the elementary level. Pre: MUS 125.

MUS 130 Convocation (1) Seminar in music performance. Study of best practices in preparation/performance of music drawn from each student's Applied Music lessons. In-class solo performances; and public performance required at the end of semester Convocation Student Recital. Co-req: One of MUS 135, 136, 235, 236, 335, 336, 435, 436. May be repeated for credit as many times as desired.

MUS 131 Intro To Applied Music (1) Individual instruction in solo vocal or instrumental performance for non-music majors and music majors in secondary performance field. May be repeated for credit. Individual instruction given in voice, piano, wind instruments, and percussion.

MUS 135 First-Level Applied Music (1-2) For music majors or performers of considerable experience. Individual instruction given in voice, piano, wind instruments, and percussion. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration. Students are required to participate in student recitals and juries.

MUS 136 First-Level Applied Music (1-2) (other) For music majors or performers of considerable experience. Individual instruction given in voice, piano, wind instruments, and percussion. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration. Students are required to participate in student recitals and juries.

MUS 141 Computer Music (3) Music production on a computer. The functionalities and capabilities of music software including virtual instruments and effects. The relationship of available music technology with musical trends and the music industry.

MUS 160 Intro to Music Literature (3) Appreciation of western art music through discussion, listening and reading. Study of elements, textures, forms and style characteristics. No previous music knowledge required.

MUS 163 American Music & Popular Cult (3) 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.

MUS 165 Introduction To Jazz (3) 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.

MUS 166 Music in World Cultures (3) Explores music as an aspect of human culture focusing on selected non-Western music styles from Asia, Africa, and the Americas.

MUS 175 Intro Music Of Polynesia (3) 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 HWST 175) (Attributes: GAHP, HPP)

MUS 176 Hist & Dev Of Hawn Music (3) 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 HWST 176) (Attributes: GAHP, HPP)

MUS 180 Elementary Music Theory (3) Designed for non-music majors. Aural skills and musical notation: pitch, rhythm, tonality, and chord structure. First experiences at the piano also included.

MUS 180L Elementary Music Theory Lab (1) Development and application of aural skills through analysis, dictation, and sight-singing. Reinforces concepts presented in MUS 180. Concurrent enrollment with MUS 180.

MUS 185 Music Theory I (3) Designed for 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. Pre: Placement conference. Must be taken concurrently with MUS 185L.

MUS 185L Music Theory I Lab (1) (lab) Connecting sound and notation through analysis, aural dictation, and sight singing. Pre: concurrent enrollment with MUS 185.

MUS 186 Music Theory II (3) Emphasis on harmonic aspects of tonal music, including all diatonic triads, dominant seventh and secondary dominants, small forms, increased application through analysis and writing. Pre: MUS 185 and MUS 185L; concurrent enrollment with MUS 186L.

MUS 186L Music Theory II Lab (1) (lab) Increased application of aural skills through analysis, dictation, and sight-singing. Reinforces concepts presented in MUS 186. Pre: MUS 185 and 185L and concurrent enrollment with MUS 186.

MUS 195 Contemporary Island Music (3) Survey of contemporary music in Hawai'i from the 1970's to today's popular music. Emphasis on performance, via the understanding of multi-cultural influences, styles of composers, and development of musical trends in Hawai'i. Practical experience with singing and ukulele included. (Attributes: HPP)

MUS 225 Music Synthesis (3) The use of computer-controlled synthesizers in musical composition, recording and performance; Music Instrument Digital Interface procedures and applications. Pre: MUS 126 and MUS 131C (Applied Music/Piano) or conference.

MUS 235 Second-Level Applied Music (1) For music majors or performers of considerable experience. Continuation of MUS 135-136. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration. Students are required to participate in student recitals and juries. Pre: MUS 136.

MUS 236 Second-Level Applied Music (1) For music majors or performers of considerable experience. Continuation of MUS 135-136. 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-hours lessons per week, or one (1) one-hour lesson per week. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration. Students are required to participate in student recitals and juries. Pre: MUS 136.

MUS 285 Music Theory III (3) 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. Pre: MUS 186, 186L and concurrent enrollment in MUS 285L.

MUS 285L Music Theory III Laboratory (1) (lab) Expanded concepts in aural dictation and sight-singing. Reinforces concepts presented in MUS 285. Pre: MUS 186, 186L and concurrent enrollment with MUS 285.

MUS 286L Music Theory IV Lab (1) (lab) Expanded concepts in aural dictation and sight-singing. Pre: MUS 285 and 285L.

MUS 325 Arranging/Transcription (3) 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 instructor's consent.

MUS 335 Third-Level Applied Music (1-2) For music majors or performers of considerable experience. Continuation of MUS 235-236. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration. Students are required to participate in student recitals and juries. Pre: MUS 236.

MUS 336 Third-Level Applied Music (1-2) For music majors or performers of considerable experience. Continuation of MUS 235-236. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at the time of registration. Students are required to participate in student recitals and juries. Pre: MUS 236.

MUS 349 Orchestration (3) 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 instructor's consent.

MUS 359 Music and Activism (3) An exploration of the ways in which

music has been used to create and support social change. The role of music in movements involving resistance, protest, and activism for political, social, and environmental justice, both in the U.S. and globally. (Same as WS 359)

MUS 365 History of Western Music I (3) Development of Western music from its origins to the twentieth century. Styles, schools, and composers. Pre: MUS 160 and 186 or instructor's consent.

MUS 366 History Of Western Music II (3) Development of Western music from its origins to the twentieth century. Styles, schools, and composers. Pre: MUS 160 and 186 or instructor's consent.

MUS 375 Jpnse Music (3) Historical survey of traditional, contemporary, and Western-influenced music of Japan and study of major genres. No previous musical knowledge is required. Pre: Junior standing or consent of instructor. (Same as JPST 375). (Attributes: GAHP)

MUS 385 20th Century Composition Techn (3) Study of the major compositional techniques and esthetics of twentieth century music, including parallelism, atonality, serialism, pandiatonicism, neoclassicism, 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 instructor's consent.

MUS 390 Choral Conducting (3) Basic conducting technique and its application to the directing of choral organizations. Includes score reading, lyric diction, rehearsal techniques, and interpretative problems. Required: concurrent enrollment in a choral ensemble . Pre: MUS 186 or instructor's consent.

MUS 401 Vulcan Band (2) Rehearsals and performances for athletic events, pep rallies, and other similar events. Public performance required. May be repeated for credit. Pre: Audition.

MUS 402 Jazz Orchestra (3) Instruction and rehearsal in various types/genres of instrumental music. Public performance may be required, depending on instrumentation and personnel. Emphasis on music literacy and individual performance skills. May be repeated for credit. Pre: audition or instructor's consent.

MUS 404 Kapili Choir (3) Performance of choral literature from Renaissance to the present, including ethnic music, world music, jazz, and choral/orchestral. Public performance required. Tour may be required. May be repeated for credit. Pre: audition and instructor's consent.

MUS 406 Chamber Ensembles (3) Rehearsals and performance of chamber music for small instrumental/vocal groups. (A): Jazz 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; (L): New Music Ensemble; (M): Musical Theatre. Public performance required. May be repeated for credit. Pre: Audition and consultation.

MUS 419 Music for Elem Teachers (3) 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 instructor's consent.

MUS 435 Fourth-Level Applied Music (1-2) (other) For music



majors or performers of considerable experience. Continuation of MUS 335-336. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at time of registration. Students are required to participate in student recitals and juries. Pre: MUS 336.

MUS 436 Fourth-Level Applied Music (1) For music majors or performers of considerable experience. Continuation of MUS 335-336. 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. Applied Music fees are in addition to regular tuition. For Applied Music courses and fee structure, see Performing Arts department chair and consult instructor at time of registration. Students are required to participate in student recitals and juries. Pre: MUS 336.

MUS 465 The World and the Composer (3) An in-depth study and analysis of a composer's or musician's life and compositions. A composer/musician will be selected for the semester's focus of study. Study to include the modern adaptations in the modern world, including non-Western cultures. May be repeated for credit once. Pre: MUS 365 and MUS 366, or instructor's consent.

MUS 485 Form & Analysis (3) Structural analysis of music literature from various style periods, including standard form types and analytical techniques applicable to post-19th century music.

MUS 487 Counterpoint (3) Contrapuntal procedures and techniques of the 16th (modal counterpoint) and 18th (tonal counterpoint) centuries. Pre: MUS 285.

MUS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

MUS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Natural Resources (NRES) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

NRES 196 Intro to Natural Resource Mgmt (3) This course highlights the biological and physical science aspects of natural resource management at local, national, and global scales. Topics covered will include resource management of soil, water, forests, rangelands, wetlands, coasts and wildlife. This is an intro-level course designed to introduce key concepts and topical areas in natural resources and environmental management. (Attributes: HPP)

NRES 230 Philippines Envirn & Nat Resou (3) Examination of the Philippines environment and natural resources from a long-term perspective. Analysis of the effects of resource management practices on environmental quality, agroecosystems, the economy, and food security.

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8:18am

Consideration of conflicting values and resolution. (Attributes: GAHP)

NRES 320 Environ Issues in Asia-Pacific (3) (lecture/lab) Impact of rapid agricultural development, deforestation, industrialization and urbanization on air, soil and water in the Asian-Pacific environment. Causes, consequences and corrective measures for pollution in the region. Combinations of expert approaches and geo-information systems, including introductory modeling are used to predict contaminant fate, behavior and critical load. Recommended: CHEM 151 or 161 or equivalent. (Attributes: GAHP)

NRES 410 Invasive Species & Ecosystems (3) Invasive species comprise one of the greatest immediate threats to global biodiversity. This course will focus on the ecological impacts of such species, the factors influencing their establishment, and the theory and practice of controlling invasive species. Pre: FOR 202 or BIOL 171 or BIOL 281 or Instructor's consent.

NRES 420 Hydrology and Watershed Mgmt (3) (lecture/lab) Managing human impact on watershed and water resources and understanding the relationships among forest, soil, water, land-use, and people. Management of wildland watershed for control of the amount and timing of water yield, stormflow, water quality, erosion, and sedimentation with socio-economic and policy considerations. Emphasis on forest and water resources management.

NRES 425 Marine Biogeochemistry (3) Marine Biogeochemistry examines the chemical processes occurring in marine and estuarine waters, their impact on near shore and oceanic environments, and their connection to climatic stability. Marine biogeochemistry is inherently interdisciplinary, involving aspects of biology, earth science and physics, as well as chemistry. Pre: CHEM 151 or CHEM 161 or consent of instructor.

NRES 430 GIS Application in Nat Res Mgt (3) GIS and spatial techniques in natural resource management. Spatial data structures, map projection, global positioning system. How to create spatial data sets through GPS survey. Utilization of GIS software and performance of basic spatial analysis. Pre: Instructor consent required.

NRES 455 Pac Climate Change Adaptation (3) This course focuses on three major components: 1) understanding the basic science of climate change; 2) impacts on productive sectors and coastal activities; and 3) vulnerability assessments and adaptation strategies for integrated coastal management initiatives as well as for individual sectors. Pre: Junior standing. (Attributes: GAHP)

NRES x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

NRES x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Natural Sciences (NSCI) Courses

Natural Sciences Division

NSCI 476 Communicating Science (3) Introduction to theory and practice of communicating science to general audiences, focusing on



adults but including teens and children. Pre: Senior standing and six credits from upper division courses in ASTR, BIOL, CHEM, ENSC, GEOL, MARE, or PHYS.

NSCI x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

NSCI x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Nursing (NURS) Courses

College of Arts and Sciences (CAS), School of Nursing

NURS 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. Pre: MATH 100, BIOL 243, 243L, 244, 244L or instructor's consent.

NURS 347 Health Assessment (3) 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. Note: Restricted to Nursing students only.

NURS 347L Hlt Assessment Practicum (1) (other) Application of the nursing process in the comprehensive health assessment of clients across the life span. Emphasize the pathophysiologic and/or psychologic influences on subjective and objective findings of selected systems. Detailed health assessment techniques as well as comprehensive history-taking. Note: Restricted to Nursing students only.

NURS 348 Human Pathophysiology (3) This course explores concepts of the biological basis for disease in adults and children. Alterations in normal body functions leading to disease and discomfort of the individual will be presented with an organized framework. Note: Restricted to Nursing and Pre-Nursing students only.

NURS 350 Transcultural Care & Hlth Prom (3) The course introduces basic principles of teaching-learning, adult learning, group process and basic transcultural care and health promotion concepts. Note: Restricted to Nursing Students Only. (Attributes: GAHP, HPP)

NURS 351 Profssnl Nsg Issues & Trends (3) 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. Includes introduction to client care management. Pre: junior standing. Restricted to Nursing Students Only.

NURS 352L Nursing Skills Laboratory (1) (lab) Practice of basic clinical skills in a campus laboratory setting to prepare student for clinical practice in community settings. Includes faculty demonstrations, student return-demonstrations, and performance testing. Course offered CR/NC only. Note: Restricted to Nursing Students Only.

NURS 353 Nursing Concepts & Skills (3) (other) 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. Note: Restricted to Nursing students only.

NURS 353L Nsg Concppts & Skills Practicum (3) (other) 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. Note: Restricted to Nursing students only.

NURS 355 Adult Health Care I (3) (lecture/other) 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. Note: Restricted to Nursing students only.

NURS 355L Adult Hlt Care I Practicum (3) (other) Application of the nursing process in providing individualized, culturally congruent care to adult clients with acute medical/surgical problems. Note: Restricted to Nursing students only.

NURS 356 Parent-Newborn Health Care (3) (other) Emphasizes the nursing process in applying culturally congruent nursing care to child bearing families. Note: Restricted to Nursing students only.

NURS 356L Parent-Newborn Hlt Care Pract (3) (other) 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 settings. Note: Restricted to Nursing students only.

NURS 357 Mental Health Care (3) (other) 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. Note: Restricted to Nursing students only.

NURS 357L Mental Hlt Care Practicum (3) (other) Application of nursing process in the delivery of mental health care to selected populations. Faculty guided clinical experience in acute and community settings. Note: Restricted to Nursing students only.

NURS 358 Nursing Research (3) Introduction to the research process and the application of scientific method in nursing. Note: Restricted to Nursing students only.

NURS 359 Foundation of Health Promotion (3) Exploration of the relationship between health promotion, health policy, and the impact on health conditions in diverse populations. Examination of the importance of health behavior and social determinants of health as contributors to current health problems, and the role of health promotion and education programs in addressing them.

NURS 360 Health Care Policy (3) Analyses of local, national and global economic, legal and social factors impacting health care policies. Discussion of relationship between emerging social issues/trends and health care disparities and capacities. Discussion of social justice, cultural competence, and equity in access and delivery of health care services. Opportunities are provided to participate in political processes impacting nursing and health care policy. (Same at SOC 360)

NURS 361 BSN Nursing Preview (3) Preview of academic and clinical opportunities for baccalaureate level nurses with an emphasis on



leadership roles and advanced practice. Exploration of strategies for success as a life-long learner. An experiential component is included in this course which will supplement didactic content. The course is restricted to licensed registered nurses who are in the RN to BSN option of the BSN Program, or by instructor's consent. Offered every spring.

NURS 362 Nursing Professional Writing (1) The professional writing course is tailored for students planning careers in nursing. This class assists the student in developing professional writing skills. Writing is an essential component of the communication skills that help define professional nursing practice. The APA style is included to guide clear and professional communication. It encompasses standards for the content and organization of a paper and ways to express ideas clearly while reducing bias in language.

NURS 370 Transcultural Health Care (3) 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. Note: Restricted to Pre-nursing and Nursing students only.

NURS 371 Health Information Technology (3) Overview of information technology. Topics cover concepts and methodologies to plan, analyze, design, implement and evaluate health information systems. Note: Restricted to Pre-nursing and Nursing students only.

NURS 372 Spirituality in Health Care (3) An examination of the role of spirituality in patient care for clients of multicultural backgrounds across the life span. Exploration of spirituality as an integral part of self.

NURS 373 Gerontological Health Care (3) Care of the aging adult with an emphasis on successful aging and health promotion. Integration of theory and evidence-based practice in providing culturally congruent care.

NURS 374 Skills Nursing Leadership & Mgmt (3) Development of effective leadership skills, communication skills, interpersonal skills, presentation and technical writing skills necessary for nursing leadership and management. Emphasis on team management and conflict resolution skills are included.

NURS 375 Applied Human Nutrition (3) Applied nutrition in human health and disease, and the nurse's role in supporting nutritional care. Pre: one chemistry and one anatomy/physiology course, or consent of instructor. Note: Restricted to Pre-nursing and Nursing students only.

NURS 376 Human Lactation (3) No prerequisites, corequisites, crosslisting, special grading options or repeatability for credit. An Indepth focus on the anatomical and physiological basis of lactation and breastfeeding. This course includes the history of infant feeding in the US, the role of culture, benefits of breastfeeding, anatomy and physiology of human lactation including composition of human milk, evidence-based breastfeeding support for expectant and new mothers, and identification of barriers and common breastfeeding problems

NURS 377 End of Life Care (3) This course will introduce, explore and assist interdisciplinary providers (nursing physicians, social workers, spiritual counselors, volunteers, etc) and other individuals to recognize and understand issues related to end of life care.

NURS 410 Community Health Care (2) 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. Note: Restricted to

Nursing students only.

NURS 410L Community Hlt Care Practicum (3) (lab) 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. Note: Restricted to Nursing students only.

NURS 455 Adult Health Care II (3) (other) 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. Note: Restricted to Nursing students only.

NURS 455L Adult Hlt Care II Practicum (5) (other) 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. Note: Restricted to Nursing students only.

NURS 456 Parent-Child Health Care (3) (other) Emphasizes the nursing process in the provision of safe and culturally appropriate care to children in the context of the family. Preventative health care, anticipatory guidance and health promotion in a developmental context are explored. Note: Restricted to Nursing students only.

NURS 456L Parent-Child Hlt Care Practicu (3) (other) 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. Note: Restricted to Nursing students only.

NURS 457 Collaborative Hlt Care, Ldrshp (3) Management and leadership concepts in delivering comprehensive nursing care to clients with complex health care needs. Emphasize critical thinking and evaluation of clinical judgments in nursing practice. Organizational resources and delivery patterns are investigated for its effectiveness in addressing client needs in a variety of community settings. Note: Restricted to Nursing students only. (Attributes: ALEX, GCC)

NURS 457L Collaborative Hlt Care Practic (2) (other) Application of management and leadership concepts in delivering comprehensive nursing care to clients with complex health care needs. Emphasize critical thinking and evaluation of clinical judgments in nursing practice. Incorporation of organizational resources and delivery patterns into nursing care that is effective and addresses client needs in a variety of community settings. Note: Restricted to Nursing students only.

NURS 459 Nursing Review (2) Review of human body systems, nursing management, concepts, and skills in client health care. Note: Pre: Nursing Major

NURS 459L Nursing Review Practicum (1) (lab) Application of nursing skills in concentrated clinical experience in the acute care setting. Pre: Nursing Majors

NURS 471 Intro Rural-Home Health Care (3) 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. Note: Restricted to Pre-nursing and Nursing students only.



NURS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

NURS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [NURS graduate-level courses](#).

Performing Arts (PART) Courses

College of Arts and Sciences (CAS)

PART 495 Senior Project (3) Senior project in the performing arts. Pre: Senior Standing

PART x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PART x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Philosophy (PHIL) Courses

College of Arts and Sciences (CAS)

PHIL 100 Intro to Philosophy (3) Major philosophers, methods, and issues in Western and non-Western philosophy. Discussion of such problems as our knowledge of reality, the freedom of the will, the relations between the mind and body, morality, the meaning of life and the existence of God.

PHIL 101 Intro to Asian Philosophy (3) Philosophical teachings of Hinduism, Buddhism, Jainism, Confucianism, Taoism, Neo-Confucianism, and Shintoism. (Attributes: GAHP, HPP)

PHIL 180 Love and Sex (3) Survey of classical and contemporary perspectives of the philosophy of love, marriage, relationships, sex, sexual identity, representations of sex and sexuality. (Same as WS 180)

PHIL 209 Reasoning (3) Informal logic: Study of practical reasoning, argument, and the use and misuse of language. Emphasis on development of critical thinking skills.

PHIL 211 History of Ancient Philosophy (3) Philosophy of the Pre-Socratics, Plato, Aristotle and Roman thinkers.

PHIL 213 History of Modern Philosophy (3) From the Renaissance to the 19th century. Recommended: PHIL 211.

PHIL 220 Social Ethics (3) 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.

PHIL 230 Belief, Knowledge & Truth (3) The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search for knowledge.

PHIL 300 History of Indian Philosophy (3) 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. Recommended: previous work in philosophy or religious studies. (Attributes: GAHP, HPP)

PHIL 301 Hist Of Chinese Philosophy (3) History of the Confucian, Taoist, and Buddhist philosophies and their interaction in China. The pivotal thinkers including Mao. Recommended: previous work in philosophy or religious studies. (Attributes: GAHP, HPP)

PHIL 302 Hist Of Buddhist Philosophy (3) History of Buddhist philosophy and its cultural influence and intellectual development in Asia and Hawai'i. Recommended: previous work in philosophy or religious studies. (Attributes: GAHP, HPP)

PHIL 304 Ethics and Cultural Diversity (3) Philosophical examination of the meaning of cultural diversity and pluralism for questions concerning community and knowledge from a variety of American and non-western cultures as well as their interactions with categories of identity, based upon nation, race, class, gender and sexuality. Addresses the interactions of the social experience of individuals based upon categories of identity and the emergence of forms of community and knowledge. A global or transnational section will be one component of the course. (Same as WS 304). (Attributes: ALEX, GCC)

PHIL 307 Theory of Knowledge (3) The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search for knowledge. (Same as WS 307)

PHIL 310 Metaphysics (3) 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.

PHIL 313 19th Century Philosophy (3) The history of 19th century philosophy, with an emphasis on the philosophers of continental Europe, including Hegel, Schopenhauer, Kierkegaard, and Nietzsche.

PHIL 315 Ethical Theory (3) Classical and contemporary theories of right and good. Pre: previous work in philosophy.

PHIL 316 Science, Technology & Values (3) Impact of science and technology on various philosophical issues. Through a variety of readings that exemplify the field's content, students will examine the social, political, aesthetic, ethical, economic, and environmental constructs that shape modern institutions in science and technology. (Same as WS 316)

PHIL 320 Social & Political Phil (3) 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. Recommended: PHIL 220.

PHIL 323 Professional Ethics (3) 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.

PHIL 325 Philosophy Of Law (3) 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.

PHIL 327 Bioethics (3) An examination of controversial topics related to life and health, such as euthanasia, treatment of animals, genetic engineering, individual autonomy, and the health care system. Pre: Previous course work in philosophy.

PHIL 328 Rights (3) This course is an examination of the socio-legal evolution of rights in the United States. Topics include theoretical approaches to rights and rights discourse as well as contextual applications of equality and power involving the Fourteenth Amendment and social movements in the areas of race and ethnicity, sex, gender, religion, education, property, and mobility. (Same as POLS 328)

PHIL 329 Environmental Ethics (3) Central ethical questions concerning the natural world, including environmental justice, responding to climate change and environmental devastation, and the relationship between human beings and the environment.

PHIL 330 Philosophy of Art (3) 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.

PHIL 340 Philosophy Of Religion (3) 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.

PHIL 343 Comparative Philosophy (3) A study of the mutual influences of Western and Eastern philosophical traditions and the potential each has to respond to the programs of the other. Pre: previous work in philosophy or instructor's consent. (Attributes: HPP)

PHIL 345 Symbolic Logic (3) Techniques of symbolic logic, including propositional logic, predicate logic and the logic of relations.

PHIL 355 Philosophy of Sport (3) A philosophical treatment of the role of sports in society and a meaningful life. Topics include the phenomenology of sport, the ethics of doping and artificial enhancement, leadership ethics, sports in the context of Hawaii, and sport fandom. Pre: Previous work in philosophy or two courses in Kinesiology or instructor approval.

PHIL 360 Existentialism (3) The themes which recur in the works of existential philosophers from the 19th century to the present. Pre: junior standing or instructor's consent.

PHIL 370 American Philosophy (3) (lecture/other) Survey of significant areas of the American tradition, e.g. 19th, 20th, 21st century thought, African, Native American, Latin American thought, feminism, recent pragmatism, pluralism, and philosophy of education. (Attributes: ALEX, GCC)

PHIL 375 Feminist Philosophy (3) Exploration of the feminist contributions to traditional philosophical questions in metaphysics, epistemology, and ethics as well as examining the philosophical implications of the intersections of race, class, gender and sexuality. (Same as WS 375) (Attributes: ALEX, GCC)

PHIL 381 Philosophy Of Wittgenstein (3) Topics in the philosophy of

Ludwig Wittgenstein, such as: meaning, understanding, pain, private language, "family resemblance," language-games, knowledge and certainty, other minds, forms of life and the purpose of philosophy. Pre: previous work in philosophy.

PHIL 385 Philosophy of Marxism (3) History and philosophy of Marxism from the early Marx through recent times, including such topics as: dialectical materialism, alienation, exploitation, surplus value, class struggle, revolution, socialism, communism, and the Marxian critique of capitalism, imperialism, fascism, terrorism, and capitalist cultural hegemony. Pre: Previous work in philosophy or instructor's consent.

PHIL 390 History & Phil of Science (3) 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.

PHIL 392 Biology & Philosophy (3) 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)

PHIL 393 Normality, Abnormality & Soc (3) Philosophical study of how human diversity interacts with social norms. Topics include health and illness, disability, gender, and sexual orientation. Perspectives from biology and the social sciences are included in a study of how beliefs about normality vary between cultures, change through time, and affect human relations. Pre: Previous work in philosophy or instructor's consent. (Same as WS 393).

PHIL 410 Philosophy of Language (3) (lecture/other) Modern and historical theories of meaning, reference and the relationship between language and knowledge. Discussion of ordinary language, ideal languages and current developments in linguistics. Pre: previous work in philosophy or instructor's consent.

PHIL 412 Philosophy of Nature (3) Examination of the philosophical theories of nature from classical to contemporary texts, and their interaction with questions of metaphysics, identity, the environment, and human freedom.

PHIL 430 Philosophy of Zen (3) 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. Recommended: PHIL 302. (Same as JPST 430) (Attributes: GAHP, HPP)

PHIL 435 Philosophy Of Tao (3) 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 instructor's consent. Recommended: PHIL 301. (Attributes: GAHP, HPP)

PHIL 450 Mahayana Buddhist Phil (3) 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 instructor's consent. Recommended: PHIL 302. (Same as JPST 450) (Attributes: GAHP, HPP)

PHIL 480 Nietzsche (3) Philosophy of Friedrich Nietzsche. Topics include the death of God, the problem of morality, perspectivism, the overhuman, the will to power, the eternal recurrence, and the



relationship between philosophy and art. Pre: PHIL 213 or PHIL 313 or PHIL 360 or consent of instructor.

PHIL 496 Seminar in Philosophy (3) For serious students of philosophy. The topics vary and the course may thus be repeated for credit.

PHIL x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PHIL x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Physics (PHYS) Courses

College of Arts and Sciences (CAS)

PHYS 110 Physics of Contemporary Issues (3) Contemporary issues of political interest such as nuclear warfare and waste, the greenhouse effect and alternative energies will be studied at a physics level appropriate for any college student. A course objective is to develop scientific reasoning. Pre: none. (Attributes: ALEX, GCC)

PHYS 111 Intro to Space Exploration (3) Survey of applied science, social, cultural and engineering topics in space science, focusing on exploration. Past, present and future aspects of space exploration. Relationship to Hawaiian views of cosmology and Hawaiian traditions such as Wayfaring and relationship to the land. (Same as ASTR 111)

PHYS 115 Phys for Liberal Arts (3) Designed for non-science majors. Basic physical concepts through student's active participation and practical experience in a manner that is simple and intuitive.

PHYS 120 Weather & Climate Hawaii (3) 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). (Attributes: ALEX, GAHP, GCC, HPP)

PHYS 150 World Models (3) This course examines computer and mathematical models of the world that take into account how its subsystems (environment, resources, politics, finance) affect each other. No prerequisites.

PHYS 151 College Physics I (3) Principles of physics with the use of algebra and trigonometry. Covers electricity mechanics, oscillations, fluids, waves, kinetic theory and thermodynamics. Pre: MATH 140x or MATH 140 or MATH 125. See also PHYS 170L which serves as the lab course (Previously offered as PHYS 106).

PHYS 151L College Physics I Lab (1) (lab) A required laboratory supplement for PHYS 151; covers basic principles of experimentation and physical measurement. Presents illustrative experiments in mechanics, heat and waves. Pre: PHYS 151 (which can be taken concurrently).

PHYS 152 College Physics II (3) Principles of physics with the use of algebra and trigonometry. Covers electricity, magnetism, optics, and rudiments of atomic and nuclear physics. Pre: C or better in PHYS 151. See PHYS 152L, which serves as the lab course (Previously offered as

PHYS 107).

PHYS 152L College Physics II Lab (1) (lab) A required laboratory supplement for PHYS 152; presents illustrative experiments in electricity, magnetism and optics. Pre: PHYS 152 which may be taken concurrently.

PHYS 170 Gen Phys I: Mechanics (4) Introductory physics designed for students majoring in physical sciences or engineering. Covers mechanics of particles, extended bodies, rotational dynamics, conservation laws, fluids, wave motion, and thermodynamics. Pre: MATH 205 (which can be taken concurrently).

PHYS 170L Gen Phys I Lab (1) (lab) A required laboratory supplement for and PHYS 170; covers basic principles of experimentation and physical measurement. Presents illustrative experiments in mechanics, heat and waves. Pre: PHYS 170 which may be taken concurrently.

PHYS 211 Electronics (4) (lecture/lab) Theory and application of circuit design and analysis. AC and DC circuits and filters; circuits based on diodes and transistors and operational amplifiers; digital circuits and filters. Laboratory will consist of the design, assembly and testing of circuits. Pre: PHYS 272, 272L, and MATH 206.

PHYS 224 Spaceflight (3) All aspects of manned and unmanned spaceflight, with emphasis on actual technologies and procedures used in space exploration. For students interested in Astronomy, Physics, Planetary Sciences, Aerospace Engineering or with a general interest in spaceflight. Pre: PHYS 151 or higher; CHEM 151 or higher; MATH 140X or higher or instructor's consent. (Same as ASTR 224)

PHYS 230 Applied Electronics (4) (lecture/lab) Theory and applications of circuit design and analysis with an emphasis on analog devices. AC and DC series and parallel RLC circuits, diodes, transistors and operational amplifiers. Laboratory will consist of construction and analysis of representative circuits. Pre: PHYS 272 or PHYS 173 and PHYS 272L. (Same as ASTR 230)

PHYS 260 Computational Physics & Astron (3) Computational techniques in physics and astronomy, with an emphasis on fundamental algorithms and development of code in high-level languages. Topics include least squares, interpolation, random number generators and numerical integration of differential equations. Pre: PHYS 272 or PHYS 173, CS 150. (Same as ASTR 260)

PHYS 260L Computational Phys & Astr Lab (1) (lab) Will offer an introduction to unix command language and programming skills relevant to Astronomy. Emphasis on writing algorithms and code programming in Python, C ++, or Fortran. Some elements of IDL and IRAF are covered. Problems will come from physics and astrophysics that will be solved using numerical methods and mathematical algorithms presents in the PHYS 260 lecture. Topics covered are integration methods, interpolation, error estimation, eigenvalues and eigenvectors, linear and non-linear equations, Fourier methods, random numbers and Monte Carlo methods. Pre: PHYS 272 or PHYS 173, PHYS 260 (may be taken concurrently). (Same as PHYS 260L)

PHYS 272 Gen Phys II: Elec & Magnetism (4) Introductory calculus-based physics designed for students majoring in physical sciences or engineering. Covers electric fields and potentials, magnetic fields, Maxwell's equations and basic optics. One class hour is dedicated to the development of problem-solving skills in small- group sessions. Pre: MATH 206 (which can be taken concurrently) and C or better in PHYS 170.



PHYS 272L Gen Phys II Lab (1) (lab) A required laboratory supplement for PHYS 272; presents illustrative experiments in electricity, magnetism and optics. Pre: PHYS 272 (which can be taken concurrently). Previously offered as PHYS 171L.

PHYS 274 Gen Phys III: Intro Modern Phy (3) Survey of contemporary physical theory and applications: special relativity; quantum physics; atomic structure and spectra, nuclear structure and reactions; elementary particles and fundamental forces. Pre: MATH 300 which can be taken concurrently and PHYS 170 and 272. (Previously offered as PHYS 270)

PHYS 330 Electromagnetism (3) Intermediate-level electrostatics and electrodynamic; electric and magnetic properties of ideal and real materials; Maxwell's equations of electromagnetism; conservation laws; electromagnetic waves and boundary value problems. Pre: MATH 231, MATH 232, PHYS 272 and MATH 300 which may be taken concurrently.

PHYS 331 Optics (3) Intermediate optics. Topics include plane waves, multiple interfaces, polarization, light propagation in real materials, Fourier optics, coherence theory, paraxial rays, diffraction and blackbody radiation. Pre: PHYS 272 and Math 231.

PHYS 341 Thermodynamics (3) Thermodynamics at the intermediate level. Includes energy, entropy, engines and refrigerators, free energy, classical and quantum statistical mechanics. Pre: PHYS 274 and MATH 231.

PHYS 360 Mathematical Physics (3) Special functions of mathematical physics which arise from Sturm-Liouville equations: Bessel, beta, elliptical, gamma and Legendre functions. Generating functions, complex integral representations. Other topics may include transforms, Fourier analysis and linear algebra. Pre: MATH 232, or MATH 231 and MATH 300 or instructor's consent. (Same as MATH 360)

PHYS 371 Classical Mechanics (3) Intermediate-level kinematics and dynamics. Central force motion; rotations, noninertial frames, normal modes of vibrations; introduction to Lagrangian and Hamiltonian formalism. Pre: PHYS 170-171; previous or current enrollment: MATH 300.

PHYS 380 Chaos (3) An introduction to nonlinear dynamical systems for science majors. Topics include dynamics in one and several dimensions, stability, excitable media, fractals, and time series analysis. Applications in physics, chemistry, ecology and other fields are illustrated. Pre: C or better in MATH 206 and C or better in PHYS 272 or MATH 232. (Same as MATH 380).

PHYS 430 Quantum Mechanics I (3) Postulates and formalisms of quantum mechanics. The Schrodinger equation in one and several dimensions: scattering, the harmonic oscillator, tunneling and the hydrogen atom. Orbital angular momentum and spin. The statistical interpretation and the uncertainty principles. Quantum statistical mechanics. Fermions and bosons. Pre: PHYS 274 and MATH 300.

PHYS 431 Quantum Mechanics II (3) A continuation of PHYS 430. Topics may include perturbation theory, the adiabatic approximation, foundations of quantum theory and/or quantum computation. Pre: PHYS 430.

PHYS 432 Senior Lab/Thesis Project (3) (lab) 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. Pre: Permission of the department is required. May be repeated once for a maximum of 6 credits. (Same as ASTR 432)

PHYS 495A Seminar (1) (other) 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 instructor's consent. (Same as ASTR 495A-495B, CHEM 495A-495-B, GEOL 495-A-495-B, and MATH 495A-495B).

PHYS 495B Seminar (1) (other) 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 instructor's consent. (Same as ASTR 495A-495B, CHEM 495A-495B, GEOL 495A-495B, and MATH 495A-495B).

PHYS 496 Space Studies Seminar (1) Seminar presentations of topics related to space exploration by invited speakers, faculty, and enrolled students. Students are required to prepare and submit reaction papers/essays.

PHYS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PHYS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Plant Pathology (PPTH) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

PPTH 301 Trop Plant Pathology (3) Principles of plant pathology, major diseases in the tropics caused by fungi, bacteria, nematodes, and viruses; their nature, diagnosis and control. Pre: BIOL 171 or consent of instructor.

PPTH 405 Plant Disease Diagnosis (3) (lecture/lab) 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: PPTH 301.

PPTH 412 Plant Disease Control (3) (lecture/lab) 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: PPTH 301.

PPTH x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PPTH x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.



Plant Physiology (PPHY) Courses

College of Agriculture, Forestry & Natural Resource Management
(CAFNRM)

PPHY 310 Plant Growth/Develop (3) 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 171 and one year of college chemistry.

PPHY 415 Plant Nutrition (3) 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 171 and one year of college chemistry.

PPHY x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PPHY x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Political Science (POLS) Courses

College of Arts and Sciences (CAS)

POLS 100 Pol Sci & Career Opportunities (3) This course provides students with an introductory broad approach to the discipline of political science. This course relates current events at the global, national, local, and state levels to a wide array of political science scholarship. This course also includes a career opportunities component, which will feature speakers from the community who can speak to the questions of "What can you do with a major in Political Science?"

POLS 101 Am Politics: National (3) Organization and functioning of the American political system at the national level.

POLS 101G Am Politics: Ntl Citizenship (3) Organization and functioning of the American political system at the national level. Includes applied learning component. (Attributes: ALEX, GCC)

POLS 201 Intro to Political Theory (3) Approaches to the study of political theory. Analysis of major themes in ancient, modern, and postmodern political theories, including: human nature; the individual and the community; liberty; power; political identity.

POLS 220 Intro to Law and Legality (3) Within the subfield of public law in the discipline of political science, the study of law and legality includes an integrated inquiry into the formal institutions of justice (e.g. courts, Constitution) as well as the associated cultural, social, and political contexts of governance (e.g. power, authority, and resistance) in everyday environments.

POLS 242 Intro To World Politics (3) 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.

POLS 251 Intro to Comparative Politics (3) Comparative study of politics, government and economic development in several different countries including Britain, Japan, Russia, China, Mexico, India and Egypt.

POLS 280 Methods of Research (3) The logic and approaches used by social scientists: concept formation, design of research projects, choice of techniques, and interpretation of results. Pre: POLS 101 or consent of instructor.

POLS 300 Hist Poli Thought: Anc To Mod (3) Political thought from ancient political philosophy to the advent of modern liberal democracy. Major thinkers include Plato, Aristotle, Machiavelli, Hobbes and Locke.

POLS 303 Feminist Political Theory (3) An examination of the progression of feminist political thought. Topics covered include the roles of women in the history of Western political thought, early feminist writings, and contemporary feminist theories related to liberalism, radicalism, and postmodernity. (Same as WS 303)

POLS 304 Liberalism and Globalism (3) Classical liberalism, neoliberalism, and their critical appraisals, with emphasis on the global dimensions of liberty, equality, and democracy in economic and political life. (Attributes: ALEX, GCC)

POLS 320 Mock Trial (3) Experiential learning in a courtroom trial setting. Preparation includes knowledge of functions and roles of court personnel, elements of proof, techniques of direct and cross-examination. Includes role-playing in six mock trial cases.

POLS 321 Constitutional Law (3) 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. Pre: POLS 220 or instructor's consent.

POLS 322 Criminal Justice (3) 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 instructor's consent.

POLS 323 Criminal Law and Procedure (3) This course addresses the basics of criminal law and procedure. Topics will include the fundamental principles of criminal law and procedure, how they were established, and how they are commonly practiced Pre: POLS 220

POLS 324 Criminology (3) Examines patterns of crime, types of offenders, theories of crime, police, courts, prisons, probation, and parole in relation to criminal behavior. Pre: SOC 100 or instructor's consent. (Same as SOC 324)

POLS 325 Legal Geography (3) In this course, we will explore and examine a variety of places that upon first consideration, do not seem either legal or political. We will investigate a variety of types of places and spaces that carry legal and political weight in our everyday lives. Themes of consumption, expression, access, accommodation, culture, sex, race, living, national identity, community, discipline, and property will guide our inquiry into the relationship between law, politics, and spatial habitation. (Same as GEOG 325). (Attributes: ALEX, GCC)

POLS 326 Juvenile Delinquency (3) Examination of the causes and control of juvenile delinquency. The major theories of juvenile delinquency will be reviewed. The course will also explore the organization and process of juvenile justice. Pre: SOC 100 or instructor's consent. (Same as SOC 326)

POLS 327 Law and Identity (3) In this course, will politically engage



with the legal construction of who we are as individuals and our presence within different communities. The relationship between law and identity involves politically contested frameworks of sexuality, gender, race and ethnicity, ability, and ownership according to both judicial doctrine and contemporary scholarship. As these frameworks shift and evolve, the politics of legal identification sculpt our own social horizons. Pre: Junior or senior standing (Same as WS 327).

POLS 328 Rights (3) This course is an examination of the socio-legal evolution of rights in the United States. Topics include theoretical approaches to rights and rights discourse as well as contextual applications of equality and power involving the Fourteenth Amendment and social movements in the areas of race and ethnicity, sex, gender, religion, education, property, and mobility. Pre: POLS 220. (Same as PHIL 328)

POLS 331 Presidency And Congress (3) 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.

POLS 332 Politics Of Race & Gender (3) 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. (Same as WS 332).

POLS 334 Pol Bvr, Campaigns & Elections (3) An examination of the influence of individuals, interest groups, mass movements and elections on the democratic process. Topics covered include electoral rules, candidate strategies, campaign finance, voting, and political mobilization. (Attributes: ALEX, GCC)

POLS 335 Envir Politics & Policy (3) 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)

POLS 337 Politic of Hawaii: State/Local (3) An examination of the institutions and political forces shaping Hawaii's contemporary state and local governance, focusing on executive, legislative and judicial institutions and their relations, political culture, leadership patterns and recruitment, voter participation in politics, electoral analysis, political economy, local political parties and interest groups. (Attributes: GAHP)

POLS 338 Public Policy Process (3) An examination of the American public policy-making process, with emphasis on the stages of the policy process, including agenda setting, policy formulation and adoption, policy implementation, and policy evaluation. Public policy issues covered include economic policy, social security and welfare, defense and law enforcement, and environment.

POLS 340 U.S. Foreign Policy (3) The policy-making process with special attention to the role of the President, the Congress, the military, organized lobbies, and the public. Pre: POLS 101 or consent of instructor. (Formerly POLS 440)

POLS 342 International Law (3) Development, functions, and sources of public international law. Survey of major areas: law of the sea; laws of air and space; laws of warfare; pacific settlement of disputes; and rule-making in international organizations. Pre: POLS 242 or instructor's consent.

POLS 343 Int'l Conflict Management (3) An examination of a variety of international conflict management strategies that employ diplomacy or coercion, such as negotiation, mediation, economics sanctions,

peacekeeping, and humanitarian intervention. Pre: POLS 242

POLS 345 Model United Nations (3) An examination of the organization of the United Nations, its rules of procedure and major UN issues. The course prepares selected students to represent the University at the National MUN (New York) or Western MUN (San Francisco). May be repeated three times for credit, but only six credits may be applied to the major.

POLS 346 International Organizations (3) Survey of the theories of international political integration, the United Nations and its specialized agencies, the European Union, NATO, the Organization of American States, OPEC, and other supraregional and regional economic, security, and political international organizations.

POLS 348 International Human Rights (3) An examination of the theory and practice of international human rights including debate on universalism, empirical cases of human rights violations, the roles of states, international organizations, and non-governmental organizations, and effectiveness of enforcement of human rights. Pre: POLS 242 or instructor's consent. (Attributes: GCC)

POLS 351 Politics Of China (3) 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 251 or instructor's consent. (Attributes: GAHP, HPP)

POLS 353 Politics Of Japan (3) 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. (Same as JPST 353) (Attributes: GAHP, HPP)

POLS 355 Internatl Political Economy (3) Topics include world powers and the world economic systems, the third world economic development, political and economic reforms, and Asian development models. Pre: ECON 100 or POLS 242 or instructor's consent.

POLS 357 Politics of the Pacific Rim (3) An examination of the politics of counties around the Pacific Rim and the development of the region since WW II, focusing on the political and economic development of the Asia-Pacific region under U.S. leadership; models of development of the U.S., Japan, Asia's "Four Little Tigers" (Korea, Taiwan, Hong Kong and Singapore), China, Russia, India, and the Southeast Asian nations; and the challenging issues of the region in the twenty-first century. Pre: Any Any 100 to 299 level Political Science course or instructor's consent.

POLS 360 Public Administration (3) 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.

POLS 391 Internship (3-12) (other) Application of knowledge and skills in a public, private, or government agency/setting. A total of 15 credits of POLS 391 and POLS 481 may be applied to the POLS major. Pre: instructor's consent, preapproved placement, statement of learning objectives, and completed internship contract. (Attributes: ALEX, GCC)

POLS 402 Contemporary Political Thought (3) Political thought from early twentieth century existentialism to postmodernism, feminism and neo-conservatism.

POLS 428 First Amendment (3) This Upper Division Political Science course will explore the broad scope of the First Amendment from a



perspective of public law. We will examine theories and applications of First Amendment freedoms pertaining to the areas of religion, expression, environments, association, and the press. Pre: POLS 220.

POLS 433 Politics, Media & Public Opin (3) An examination of the role of mass media in shaping public opinion and influencing governance. Topics include the use of media by candidates, government officials and organized interests; media effects on individuals; determinants of public opinion; public opinion polling; and methods of public persuasion. Pre: POLS 101 or instructor's consent.

POLS 442 War and the State (3) An examination of the relationship between warfare and the modern state. Consideration given to the consolidation of power in national governments through the evolution of weapons technology and the military organization. Also considered is the emergence of non-state actors -such as terrorist groups- whose activities challenge the nation state.

POLS 457 U.S.-China Relations (3) This course surveys the history of U.S.-China relations to the present and gives in-depth consideration to contemporary issues including China's human rights record, the issue of Taiwan, U.S.-China trade relations, and China's global role in the twenty-first century.

POLS 470S Seminar in Political Science (3) (other) This is a capstone course that provides an intensive examination of the major concepts, categories and methods of political science. Topics include political ideologies, attitudes, voting behavior, institutions of government, public policy, law, justice and world politics. Pre: POLS 101, POLS 201, POLS 220, POLS 242, POLS 251, POLS 280 and junior or senior standing.

POLS 481 Government Internship (3-15) (other) 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 repeated once for credit, but no more than 15 credits semester hours of credit and a stipend. May be of POLS 481 and/or POLS/SOC 391 shall apply to the major. Pre: instructor's consent. (Attributes: ALEX, GCC)

POLS 490 Senior Thesis (3) Individual research in problems of special interest. Pre: consent of instructor.

POLS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

POLS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Psychology (PSY) Courses

College of Arts and Sciences (CAS)

PSY 100 Survey Of Psy (3) 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.

PSY 213 Statistical Techniques (4) 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.

PSY 214 Research Methodology (4) 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.

PSY 312 Evaluation Research (3) 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.

PSY 313 Testing & Measurements (3) Principles, concepts, and procedures of psychological testing, including construction, validation, interpretation, and use of tests in intellectual and personality assessment. Pre: PSY 100, 213.

PSY 314 Learning & Motivation (3) 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.

PSY 315 Sensation And Perception (3) Psychophysics, vision, audition, taste, smell, theories of perception. Pre: PSY 100, 213, 214.

PSY 319 Experimental Psychology (3) Original experiments with emphasis upon laboratory techniques. Control of variables, apparatus design, statistics in research. Pre: PSY 100, 213, 214.

PSY 320 Developmental Psy (3) Emotional, mental, physical, social development from infancy to adulthood; interest and abilities at different age levels. Pre: PSY 100.

PSY 321 Psy Of Personality (3) 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.

PSY 322 Social Psychology (3) Interpersonal relations, social attitudes; group dynamics; intergroup relations, class and cultural influences. Pre: PSY 100.

PSY 323 Community Psychology (3) 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. (Attributes: ALEX, GAHP, GCC, HPP)

PSY 324 Abnormal Psychology (3) Nature and causes of psychotic, neurotic, intellectual, and other psychological disorders. Definition, assessment, and diagnosis of abnormality. Psychotherapy, chemotherapy, and other treatment alternatives. Prevention, legal, and societal issues. Pre: PSY 100.

PSY 325 Psychology Of Women (3) Issues and topics relevant to the psychological development and functioning of women including sex differences in abilities and behavior, achievement motivation, work, sexuality, pregnancy, childbirth and motherhood, mental health and domestic violence. Pre: PSY 100. (Same as WS 325)

PSY 333 Psycholinguistics (3) Theory and method in the investigation of the relationship between language and cognition, first and second



language acquisition, speech pathologies. Pre: LING 102 or PSY 100 or consent of instructor. (Same as LING 333)

PSY 335 Animal Psychology (3) Biological, ecological, social and learned bases of animal behavior based on laboratory and field investigations. Pre: PSY 100 or consent of instructor.

PSY 350 Cognitive Psychology (3) Theories, assumptions, empirical findings, and applications of cognitive psychology. Topics include memory, inference, prediction, and mental imagery. Pre: PSY 214.

PSY 352 Introduction to Biopsychology (3) Survey of the study of behavior from the viewpoint of the natural sciences. Genetics, neural mechanisms, pharmacology, and biological development of behavior will be discussed. Pre: PSY 100, 214.

PSY 353 Clinical Psychopharmacology (3) This course will offer a discussion of psychopathology from a biological perspective including the neurochemical, neuroanatomical, and genetic causes of psychological disease. Emphasis will be placed on the pharmacotherapeutic treatment of psychopathology. Pre: PSY 352 or instructor's consent.

PSY 355 Science of Sex (3) This course will examine the scientific study of sexual behavior in both human and non-human animals from the perspectives of behavioral genetics, psychoneuroendocrinology, ethology, psychology, and neuroscience. Pre: PSY 214 or instructor's consent.

PSY 360 Cross-Cultural Psy (3) 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. (Attributes: GAHP)

PSY 369 Evolutionary Psychology (3) The course is a synthesis of modern psychology and evolutionary biology. It introduces students to the basic mechanisms of behavioral evolution. The course emphasizes adaptive problems and how humans of different sexes, cultures, ages and developmental stages solve them. Pre: PSY 100.

PSY 370 Sport Psychology (3) Survey of methods and findings in the application of psychological principles in sport. Topics include arousal and anxiety, cognitive processes, team performance, coaching behavior and techniques to maximize sports performance. Pre: PSY 100. (Same as KES 370).

PSY 377 Counseling Psychology (3) This course covers the various theoretical approaches to counseling, the therapeutic relationship, techniques of counseling, ethical issues, research, diagnosis and assessment, cross-cultural counseling, as well as career, family and couples, and group interventions. Pre: PSY 100.

PSY 380 Health Psychology (3) 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.

PSY 385 Women & Health (3) Reproductive health, immune activity, autoimmune disease and mental health in women are covered from physiological, psychological, historical and cross-cultural perspectives. Pre: PSY 100. (Same as WS 385)

PSY 390 Industrial & Organizationl Psy (3) The application of the methods, facts, and principles of psychology to people at work in diverse

group and organizational settings.

PSY 416 Emotion (3) A comprehensive introduction to the topic of emotion as it has been treated in the field of Psychology. Different theories and approaches to the scientific study of emotion, including basic neuroscientific principles, and recent human brain imaging techniques are discussed. Pre: PSY 352 or consent of instructor.

PSY 420 Adolescent Develop & Mental Hlt (3) Normative and problematic development during adolescence. Cross-cultural differences and similarities in adolescent development. Theoretical approaches to adolescent mental health. Causes and effects of maladjustment. Approaches to prevention and intervention. Pre: PSY 214, PSY 320.

PSY 422 Psychology of Sustainability (3) This course takes a service-learning approach to the study of theory and research in the areas of psychology that affect sustainable living. Research in the areas of attitudes, persuasion, behavior change, risk perception, social dilemmas, and social norms will be included. Classes will be seminars with the addition of students working in small groups to investigate and develop recommendations for a community client on a problem related to the promotion of sustainable living. Pre: PSY 214 or instructor's consent. (Attributes: ALEX, GCC)

PSY 425 Career Development (3) Work-related behavior over the span of life. Theory, research, and counseling about career development. Work values, career goals, career decision-making, and occupational choice. Work adjustment and satisfaction. Work within the context of human lives. Interaction between career development processes and other domains of life, such as family, education, leisure. Course is conducted as a seminar with an emphasis on discussion. Pre: PSY 214, PSY 320.

PSY 430 Physiological Psychology (3) Relationship between physiology and behavior. Topics include neuroanatomy, the hormone systems associated with feeding, drinking, reproduction, aggression, and stress, and the neurological and hormonal basis of mental disorders. Pre: PSY 100, 213, 214, or instructor's consent.

PSY 430L Physiol Psy Lab (1) Laboratory to accompany PSY 430.

PSY 431 Brain Disease (3) Neurobiological mechanisms of central nervous system diseases and disorders. Pre: PSY 100, 213, 214 and either PSY 350 or 352.

PSY 432 Psy Of Motivation (3) Theories of arousal and activation, incentive and reinforcement, and behavior suppression. Pre: PSY 100 and instructor's consent.

PSY 436 Animal Cognition (3) (lecture/other) A survey of the historical and contemporary scientific literature on animal cognition using a wide variety of species. The course covers a broad array of topics that may include concept formation, memory processes, numerical competence, social learning and imitation, self-awareness, theory of mind, referential communication and grammatical skills. Pre: PSY 213, 214, and PSY 314 or 350, or instructor's consent. (Same as BIOL 436)

PSY 437 Marine Mammal Behavior (3) An introduction to marine mammals with emphasis on the behavior of marine mammals. Special attention given to those species found in Hawaiian waters. Individual species are examined within a comparative framework. Topics include: behavioral ecology, social behavior, cetacean societies, mating systems, communication, sensory perception, and cognition. Pre: PSY 213, PSY 214 and PSY 314 or PSY 315 or PSY 350 or PSY 352 or instructor's consent. (Same as BIOL 437)



PSY 438 Child Cognition (3) How children think. A survey of how human perceptual and cognitive skills and intellectual abilities develop from infancy through early adolescence, and how cognitive development corresponds to brain development. Topics include theories of cognitive development, perception and attention, mental representation, concept development, categorization, social awareness, theory of mind, memory systems, language development, numerical competence, and approaches to the study of intelligence. Pre: PSY 100, 213, 214, and PSY 320 or instructor's consent.

PSY 440 History Of Psychology (3) Historical origins and development of contemporary psychology. Pre: 12 semester hours in psychology.

PSY 445 Practicum in Psychology (3) Supervised experience in human service, mental health and other community agencies in the local community. Pre: 12 semester hours in Psychology and instructor's consent. (Attributes: ALEX, GCC)

PSY 450 Child Behavior Therapy (3) This is an advanced seminar on the practical application of behavioral theory to treatment of child and adolescent psychological disorders. Special emphasis will be given to the integration of science and practice with topics including behavioral assessment, basic principles and procedures of behavior modification, and evidence-based treatment for children and adolescents. Pre: PSY 100, PSY 213, PSY 214 and PSY 320 or PSY 324.

PSY 451 Adult Behavior Therapy (3) Theory, research, and practice in cognitive behavior therapy applied to adult disorders and problems. Treatment applications of relaxation, exposure and prevention, desensitization, aversion therapy, biofeedback, self-control, imagery and cognitive strategies. Pre: PSY 324

PSY 452 Drugs of Abuse (3) Effects and consequences of drugs of abuse from both psychological and biological perspectives. Implications for substance abuse treatment will be discussed. Pre: PSY 352 or instructor's consent.

PSY 453 Clinical Psychopharmacology (3) This course will offer a discussion of psychopathology from a biological perspective including the neurochemical, neuroanatomical, and genetic causes of psychological disease. Emphasis will be placed on the pharmacotherapeutic treatment of psychopathology. Pre: PSY 352 or instructor's consent.

PSY 454 Methamphetamine: Clinc/Forens (3) Effects and consequences of methamphetamine from both psychological and biological perspectives. Methamphetamine, politics and the law. Implications for substance abuse treatment will be discussed. Pre: PSY 352 or instructor's consent.

PSY 460 Psychology of Culture & Health (3) This course examines research and theory on how culture influences the occurrence, symptoms, diagnosis, and treatment of disease in an individual. In seminar-format, we will explore behaviors and attitudes that affect health and prevention of disease in the individual and how they are affected by culture, such as cultural definitions of health, culture and the conception of the body, as well as cultural influences on attitudes and beliefs related to health and disease. Pre: PSY 214, PSY 360, or instructor's consent.

PSY 461 Psychology and Cancer (3) This course examines the state of behavioral and social science research regarding the impact of psychological, biological, behavioral, and social factors on cancer onset, progression, treatment, and survival. These factors are considered

across the entire cancer continuum and at multiple levels of analysis. Pre: PSY 100, 213, 214, 323.

PSY 469 Social Behavior of Primates (3) The course examines primate social systems. Emphasis is on a comparative analysis of primates' socioecology, group life, communication and intelligence. Pre: PSY 352 or PSY 335, or instructor's consent.

PSY 470 Clinical Psychology (3) Nature, history, and contemporary state of the profession of clinical psychology. Theories, methods, and findings in assessment, intervention, research, and clinical practice. Multiple roles of the clinical psychologist, ethical and professional issues, standards of care, legal regulations of practice, and the mental health care system. Pre: PSY 324.

PSY 471 Child Abuse and Neglect (3) A survey of topics related to physical, sexual and psychological child abuse and neglect, including: the prevalence and incidence of different forms of abuse and neglect, scientific theories and findings about the causes and consequences of abuse and neglect, forensic and clinical assessment of abuse and neglect, mandated reporting and other legal issues, and psychological interventions for abused and neglected children and their families. Pre: PSY 214 and PSY 320, or instructor's consent.

PSY 475 Asian American Psychology (3) The course examines the personality and mental health issues of Asian Americans. Special emphasis is given to how minority group status, adaptation processes and bicultural development influence various aspects of psychological functioning. Specific topics include stereotypes and racism acculturation and enculturation, cultural values and behavioral norms, family roles, ethnic identity, communication styles, gender and interracial relationships, academic and career achievement, stressors and social support systems, psychopathology and culturally competent mental health treatment. Pre: PSY 100 and either PSY 360 or consent of instructor. (Attributes: GAHP, HPP)

PSY 489 Research Seminar (3) (other) Research in Psychology. Statement of 3 semester hours of planned reading or research required. Attendance at bimonthly seminar required. Seminars include lectures, discussions and research reports of topics in psychology presented by faculty, students, and visiting scholars. Pre: consent of instructor.

PSY 496 Tchg Asst & Tutoring in PSY (1-3) Practice in individual tutoring, and in the preparation of the selected topics in Psychology lecture or laboratory courses, under direct instructional supervision. This course may be repeated for a maximum of 6 credits and may not be used to replace any specific course or elective requirements of the Psychology major. Pre: supervising instructor and department chair consent.

PSY x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PSY x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [PSY graduate-level courses](#).



Quantitative Business Analysis (QBA) Courses

College of Business and Economics (COBE)

QBA 260 Business Statistics (3) Application of statistics to business. Includes an introduction to probability and sampling; descriptive statistics, inference, regression and one-way analysis of variance. Pre: Admission to One MATH course numbered 125 or higher (may be taken concurrently).

QBA 300 Operations Management (3) This course is intended to provide students with an understanding of the principles of operations management. Topics covered include productivity, project management, forecasting, managing quality, human resource work studies, capacity planning, location and layout planning, supply-chain, inventory management, optimization, queuing, and simulation. Pre: Admission to Professional Business Program and C or better in QBA 260.

QBA 362 Mgt Information Systems (3) Examination of business information subsystems and the role of computers in accounting, marketing, production, and financial subsystems; theory of general management information systems. Pre: Admission to Professional Business Program.

QBA 365 Managing Electronic Commerce (3) Topics in advanced electronic commerce (EC) management. Issues include: defining EC in its various forms; exploring EC strategies; economics of EC; global EC issues. The class will complete a semester-long hands-on-project requiring students to: assess a business' needs and opportunities; plan a Web site corresponding to the needs assessment; design a fully functional and interactive commercial Web site; plan and implement administrative parameters and functions for customer service, security, site monitoring, site maintenance, business performance, and site effectiveness. Pre: Admission to Professional Business Program, MGT 341 or QBA 362, or consent of instructor.

QBA x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

QBA x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Sociology (SOC) Courses

College of Arts and Sciences (CAS)

SOC 100 Principles Of Sociology (3) An introduction to the theories, scientific methods and empirical findings of contemporary sociology.

SOC 200 Career Opportunities in Soc (1) 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. Formerly SOC 490.

SOC 240 Social Psychology (3) An introduction to how sociologists view the relationship between social institutions, social groups and

individual actions.

SOC 260 Social Problems (3) 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. (Attributes: ALEX, GCC)

SOC 280 Statistical Reasoning (3) An introduction to basic descriptive, correlational, and inferential statistics used in the social sciences and education. Pre: concurrent enrollment with SOC 280L.

SOC 280L Lab in Statistical Reasoning (1) (lab) An introduction to the techniques and usage of statistical applications involving computation and interpretation of statistics.

SOC 300 Family in World Perspective (3) 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 instructor's consent. (Same as WS 300).

SOC 301 Intro Social Work (3) 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 instructor's consent.

SOC 305 Org Theory & Analysis (3) 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.

SOC 310 Race & Ethnic Relations (3) 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 on Hawai'i and the Pacific region. Pre: SOC 100 or instructor's consent. (Same as WS 310).

SOC 320 Social Stratification (3) The causes and consequences of institutionalized social inequality. Pre: SOC 100 or instructor's consent. (Same as WS 321).

SOC 324 Criminology (3) Examines patterns of crime; types of offenders; theories of crime; police, courts, prisons, probation, and parole in relation to criminal behavior. Pre: SOC 100 or instructor's consent. (Same as POLS 324).

SOC 325 Sociology Of Disaster (3) The ways in which human communities and organizations bring about, prepare for, and respond to calamitous environmental changes. Case studies selected from many societies.

SOC 326 Juvenile Delinquency (3) Examination of the causes and control of juvenile delinquency. The major theories of juvenile delinquency will be reviewed. The course will also explore the organization and processes of juvenile justice. Pre: SOC 100 or consent of instructor. (Same as POLS 326)

SOC 328 Gender, Crime, and Justice (3) This course will examine theoretical perspectives on gender, crime, and the criminal justice system. Students will analyze the intersecting roles played by gender, race, and class in criminal offending, victimization, and institutional responses. Additional topics may include masculinity and crime, women and punishment, female delinquency, gender violence, sex work, and the role of women in the criminal justice system. Pre: Soc 100 or WS 151 (Same as WS 328).



SOC 331 Queer Studies & Contem Society (3) A review of current issues using queer and sociological perspectives on sexualities and social change. Pre: SOC 100 or WS 151 or permission of instructor. (Same as WS 331)

SOC 340 Socialization & Identity (3) The process by which an individual becomes a functioning member of society. Pre: SOC 100 or instructor's consent. (Same as WS 340).

SOC 342 Soc Of Human Aging (3) 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 instructor's consent. (Same as WS 342).

SOC 345 Human Populations (3) Introduction to population theories and sociological research on population distribution, composition, and change within global and local contexts. Pre: SOC 100 or instructor's consent.

SOC 350 Global Sociology (3) Introduction and exploration into global social and economic processes and how they interact with local conditions in different regions of the globe.

SOC 352 Sociology Of Education (3) Formal education as an aspect of socialization. Emphasis is on the American system from a historical and comparative perspective. Pre: SOC 100 or instructor's consent.

SOC 355 Sociology Of Religion (3) 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 instructor's consent.

SOC 357 Intro to Family Therapy (3) An introduction to Marriage and Family Therapy including the profession's history, foundational theories, ethics and demonstrations of skills used by marriage and family therapists to help individuals, couples, and entire families deal with psychological, emotional and behavioral problems. Pre: SOC 100, PSY 100 or instructor's consent.

SOC 360 Health Care Policy (3) Analyses of local, national and global economic, legal and social factors impacting health care policies. Discussion of relationship between emerging social issues/trends and health care disparities and capacities. Discussion of social justice, cultural competence, and equity in access and delivery of health care services. Opportunities are provided to participate in political processes impacting nursing and health care policy. (Same at NURS 360)

SOC 363 Globalization, Gender, Fashion (3) Focus on the sociological significance of the garment and fashion industry, consideration of gender and globalization in the processes of production, consumption and resistance. Pre: SOC 100 or WS 151 or instructor's consent. (Same as WS 363) (Attributes: GCC)

SOC 365 Sociology of Deviance (3) This course examines social deviance, focusing on theory and contemporary research in the field. Topics to be covered may include sexual deviance, physical and cognitive deviance, substance use and mental illness. Pre: SOC 100 or consent of instructor.

SOC 370 Political Economy of Hawai'i (3) An exploration into the political and economic processes of Hawai'i and how the two interrelate and affect each other. Emphasis on current issues and practices as well as processes. Pre: SOC 100 or consent of instructor. (Attributes: GAHP,

HPP)

SOC 371 Student Leadership Conference (3) This course is about developing and putting into practice student leadership skills. This will be accomplished through organizing and putting on a student leadership conference. Students will organize the conference as a whole as well as workshops and sessions. In addition, students will be expected to critique the conference.

SOC 377 Feminist Social Theory (3) This course offers a survey of key feminist perspectives (intersectionality, post-colonialism, indigenous) that highlight a sociological examination of gender inequity in global society. Pre: SOC 100 or WS 151 or consent of instructor. (Same as WS 377)

SOC 380 Methods Of Research (3) A survey of the logic, purposes, techniques, terminology, and issues of social research methodology. Pre: SOC 100, 280 and 280L or instructor's consent.

SOC 390 Sociological Theory (3) 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 instructor's consent.

SOC 391 Internship (3-12) Application of knowledge and skills in a public, private, or government agency/setting. May be taken for at total of 12 credits, only six of which can apply to the Sociology major or three to the minor. Pre: instructors consent, preapproved placement, statement of learning objectives, and completed internship contract. (Attributes: ALEX, GCC)

SOC 400 Sem in Social Psych (3) The relationship between social pressures/structure and the individual. Emphasis upon current research and theory in the area. Pre: SOC 100 and junior standing or instructor's consent.

SOC 405 Sem in Social Organizatn (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 consent of instructor.

SOC 407 Gender Inequality inPopCulture (3) Exploration of gender and sexuality as systems of inequality, as social constructions, as performance, and as dynamic forces within American popular culture. Students develop skills to sociologically research and analyze artifacts of popular culture. Pre: SOC 100 or WS 151 or instructor's consent. (Same as WS 407).

SOC 408 Island Feminism (3) The course considers the specific geographical, social, and cultural aspects of islands societies and how gender, sexuality, and race/ethnicity shape them in the context of globalization. Pre: SOC 100 or WS 151 or consent of the instructor. (Same as WS 408)

SOC 409 Seminar in Social Movements (3) An exploration of the ways in which social movements have shaped politics, policy and social culture in the United States. Students will research and analyze historical and contemporary social movements. Pre: SOC 100 or WS 151 or instructor's consent. (Same as WS 409)

SOC 414 Global Social Movements &Japan (3) Exploration of the expansion of transnationally linked social movements with a



concentration on justice movements in Japan. Pre: SOC 100 or LANG/JPST/CHNS 200 or permission of instructor (same as SOC 414). (Attributes: HPP)

SOC 420 Sem in Social Institutions (3) Institutions in contemporary society, with focus upon the process 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 consent of instructor.

SOC 430 Sem 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 instructor's consent.

SOC 480 Practicum in Social Research (3) (other) 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 instructor's consent. (Attributes: GAHP, HPP)

SOC x94 Special Topics in Subject Matter (Arr.) (IO) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

SOC x99 Directed Studies (Arr.) (IO) Statement of planned reading or research required. Pre: instructor's consent.

Soil Science (SOIL) Courses

College of Agriculture, Forestry & Natural Resource Management (CAFNRM)

SOIL 304 Tropical Soils (3) (other) Origin, development, properties, classification, use and management of soils with emphasis on applications in the tropics. Pre: CHEM 151 or CHEM 161 or consent of instructor.

SOIL 350 Soil Fertility (3) (lecture/lab) Nutrient availability in relation to chemical and physical properties of tropical soils; fertility evaluation by plant response and soil tests; cycling of carbon, nitrogen, and minerals; nutrient management for enhanced plant productivity and maintenance of environmental and soil quality. Pre: CHEM 151 or CHEM 161 or consent of instructor. SOIL 304 recommended.

SOIL x94 Special Topics in Subject Matter (Arr.) (IO) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

SOIL x99 Directed Studies (Arr.) (IO) Statement of planned reading or research required. Pre: instructor's consent.

Spanish (SPAN) Courses

College of Arts and Sciences (CAS), Languages

SPAN 101 Elementary Spanish I (4) Beginning course, primarily emphasizing oral practice. Laboratory drill.

SPAN 102 Elementary Spanish II (4) Beginning course, primarily emphasizing oral practice. Laboratory drill. Pre: SPAN 101 or equivalent.

SPAN 200 Interm Conversational Spanish (3) This course is intended for students who have gained some basic knowledge of Spanish language but need to improve their fluency and vocabulary necessary for practical functions in life: greetings and self-introduction, being or hosting guests, shopping, travel, airport situations, study abroad, etc. SPAN 200 will enhance SPAN 102 and 102 and complement SPAN 201, enabling the student to acquire oral fluency. Prereq or coreq: SPAN 102 or instructor's consent.

SPAN 201 Intermediate Spanish I (4) Continuation of oral practice with increasing emphasis on reading and written composition. Laboratory drill. Pre: SPAN 102 or equivalent.

SPAN 202 Interm Spanish II (4) Continuation of oral practice with increasing emphasis on reading and written composition. Laboratory drill. Pre: SPAN 201 or equivalent. (Attributes: HPP)

SPAN 301 Adv Spanish Conversation (3) (lecture/lab) Advanced Spanish Conversation will place emphasis on 2 of the 4 language skills: listening and speaking. The study of Spanish conversation in 15 common contexts will give the student a much deeper awareness of cultural expectations and norms in the Latin world. Knowledge of their courtesies and respect, their customs and situational idiosyncrasies is critical to create business or interpersonal relations. The student will also learn how Anglo customs overstep bounds and create offense in the Hispanic collective cultures. Student will gain fluidity and comprehension as well as cross-cultural understanding.

SPAN 302 Adv Spanish Reading/Writing (3) (lecture/lab) Advanced Spanish Reading and Writing (302) will markedly extend the student's ability to read and write in a second language. Cultural expectations and practice are necessary to produce articles, journalism, business writing and literary analysis. The 302 is for students with Intermediate Spanish experience or with immersion experience in a Spanish or Latin culture. This course will teach students to critically comprehend Spanish texts, requiring them to reflect on these texts by producing written Spanish. Fifteen cultural texts will be read; fifteen papers and their corrections will be required.

SPAN 306 Medical Spanish (3) This class will develop students linguistically to work with Spanish speakers in nursing, pharmacy and medicine. The purpose of this course is to give the students the skills to communicate with patients and customers whose English is not adequate for intercommunication. The emphasis will be on medical vocabulary and the taking of medical histories by oral interview in Spanish. Vocabulary for heart patients, diabetes patients, gynecological patients and common ailments such as urinary tract discomforts will be covered and reviewed repetitively. The student will participate in 40 oral interviews.

SPAN 307 Business Spanish (3) This course is for students of business, finance, tourism, or law. It provides linguistic tools in Spanish for employment purposes in line with students' respective majors. The course will build appropriate vocabulary, emphasizes Spanish and Latin protocols, perceptions in business, and address major mistakes made by



North Americans in Latin or Hispanic business situations. The course is divided into three units: Business Situations, Written Forms of Business Communications and Business Practice, which will combine and reinforce the first two units.

SPAN 368 Gender & Women LatAm Lit/Film (3) Latin American men and women of alternative genders in the 20th century have lived in vastly different conditions and upheaval spanning feudalism to postcolonial thought. From genocide to authoritarian institutions of torture, the people in the texts and films had to endure turmoil and violent clashes of ideas. This course captures the Latin perspective of four different sociological spaces that women occupy in Latin America: the Indigenous space, the patriarchal latifundio, the mestizo space of markets, and the professional women under the military governments. Latin American and French feminist theories are used to clarify these contexts. (Same as WS 368).

SPAN 369 Lat&Glob Docum&Film: Crit Analy (3) This course will engage students in Latin and Global documentaries and films in the context of their perspectives, providing an excellent window into culture and world conflicts. The students lives in a global world today in which expansion of mindsets must become elastic with the practice of cultural exposure and analysis (Attributes: GW) (Same as WS 369 Crit Anal Lat & Hisp Film (3)).

SPAN x94 Special Topics in Subject Matter (Arr.) (10) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

SPAN x99 Directed Studies (Arr.) (10) Statement of planned reading or research required. Pre: instructor's consent.

Tourism (TOUR) Courses

[College of Business and Economics \(COBE\)](#)

TOUR 317 Mkt & Mgt Of Travel & Tourism (3) 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: Admission to Professional Business Program and MKT 310.

TOUR 320 Tourism Economics (3) Microeconomics of travel: determinants of demand, empirical studies, demand forecasting; production cost analysis, market structure in major travel industries. Macroeconomic impacts. Pre: Admission to Professional Business Program and ECON 130.

TOUR 340 Interntl Travel & Tourism Plcy (3) 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: Admission to Professional Business Program, junior standing and consent of instructor.

TOUR 350 Intro to Sustainable Tourism (3) Management and marketing issues faced by communities, business and government in developing sustainable tourism. Product development, pricing, capacity management, promotion and distribution channels. The strategic

planning approach is introduced and applied in hands-on casework. Special resources include guest speakers with working knowledge of sustainable tourism and field trips to on-island tourism sites. Pre: Junior standing and acceptance into the Professional Business Program.

TOUR x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

TOUR x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

University (UNIV) Courses

[College of Arts and Sciences \(CAS\)](#)

UNIV 101 Paths to Acad/Lifelong Success (1) Designed for the first-time college student, this course is intended to promote the attitudes, behaviors, competencies, and skills that will increase students' academic success and foster their social integration into the college environment.

UNIV 102 Career and Major Decisions (3) A course designed to introduce students to the UH Hilo colleges, major areas they offer, and how to connect your major choices to potential career paths. Students will utilize activities and assignments in and out of the class in order to reach this goal.

UNIV 191 General Internship (1-3) (other) Application of knowledge and skills in a public, private, or government agency/setting. Pre: Instructor's consent. May be repeated for a total of six credits.

UNIV x94 Special Topics in Subject Matter (Arr.) (10) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

UNIV x99 Directed Studies (Arr.) (10) Statement of planned reading or research required. Pre: instructor's consent.

Gender and Womens Studies (WS) Courses

[College of Arts and Sciences \(CAS\)](#)

WS 151 Intro Gender & Women's Studies (3) An interdisciplinary survey of gender issues in contemporary U.S. society. Introduces foundational concepts regarding social constructions of gender, race, class, and sexual orientation. Topics include history, religion, sexuality, body image, reproductive rights, family, work, and violence.

WS 180 Love and Sex (3) Survey of classical and contemporary perspectives of the philosophy of love, marriage, relationships, sex, sexual identity, representations of sex and sexuality. (Same as PHIL 180)

WS 200 Gender Leadership & Soc Just (3) This course offers students the opportunity to think critically about leadership concepts, activism, and social change. Students will reflect on how social justice



and multiculturalism influence the community and leadership of woman. Students will critically examine leadership theories and how to apply personal leadership styles. Pre: WS 151 or permission of the instructor. (Attributes: ALEX, GCC)

WS 200E Lit Genres: Myth/Folklore (3) An introduction to major genres in literature: Mythology and Folklore. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 200E)

WS 201 Global Cinema (3) A course that offers students a critical examination of worldwide cinema. The course will cover film theory and film making techniques from countries such as Germany, Mexico, China, Senegal, Iran, and India. Students will undertake a critical study of various schools of film as they pertain to these national cinemas as well as explore the cultural and socio-political controversies surrounding cinematography. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 201)

WS 202 Literature of Human Rights (3) This course will explore narratives from a human rights perspective, beginning in the era shortly before the adoption of the Universal Declaration of Human Rights in 1948 and extending into the 21st century. Students will focus on geopolitical conditions that contribute to the suppression of human rights in areas around the globe, including, but not limited to, Chile, India, Nigeria, Iran, the Palestinian Territories, and the United States. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 202)

WS 204 Intr Race/Gender Film Studies (3) This course will focus on how race and gender historically shape individual and cultural experiences in America, as expressed in film. Key works that offer portrayals by and about various groups (i.e. gays/lesbian, immigrants, indigenous communities, mixed-race populations, etc.) will be critically compared and examined. Students will also discuss and address evolving audience responses to these works. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 204)

WS 206 Intro to Popular Culture (3) This course offers an introductory study of mainstream manifestations of culture. Students will critically assess production, distribution, and consumption of various popular cultural genres, such as advertising, talk shows, sports programs, music videos and gossip magazines and websites, among many others. Pre: C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 206)

WS 210 Gender and Communication (3) This course is an introduction to gender research in communication, studying ways in which language, interpersonal communication, the media, and various social institutions influence conceptions of gender. (Same as COM 210)

WS 257 Multicultural Literature (3) This is a course designed for students who want to engage literatures from various ethnic groups in the U.S. The course includes historical context regarding the production of these literatures, providing an overview of how these groups have developed their own literary techniques, genres, and canons. Pre C or better in ENG 100, ENG 100T, ESL 100 or ESL 100T. (Same as ENG 257)

WS 300 Family in World Perspective (3) 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 instructor's consent. (Same as SOC 300).

WS 301 Women in Science (3) The interrelationships of women and science examined from historical, sociological, philosophical, and biological perspectives. Factors contributing to underrepresentation,

feminist critiques of science, examination of successful strategies.

WS 303 Feminist Political Theory (3) An examination of the progression of feminist political thought. Topics covered include the roles of women in the history of Western political thought, early feminist writings, and contemporary feminist theories related to liberalism, radicalism, and postmodernity. (Same as POLS 303)

WS 304 Ethics & Culture Diversity (3) Philosophical examination of the meaning of cultural diversity and pluralism for questions concerning community and knowledge from a variety of American and non-western cultures as well as their interactions with categories of identity, based upon nation, race, class, gender and sexuality. Addresses the interactions of the social experience of individuals based upon categories of identity and the emergence of forms of community and knowledge. A global or transnational section will be one component of the course. (Same as PHIL 304).

WS 305B Themes in Regnl Geog: Mid East (3) Surveys regional landscapes of the Middle East, including North Africa; focuses on historical and contemporary influences of physical, cultural, and economic landscapes. Pre: Junior or senior status, or consent of instructor. (Same as GEOG 305B)

WS 307 Theory of Knowledge (3) The sources and limits of human knowledge. Classical and contemporary epistemological theories, and their application to the everyday search of knowledge. (Same as PHIL 307)

WS 310 Race & Ethnic Relations (3) 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 on Hawai'i and the Pacific region. Pre: SOC 100 or instructor's consent. (Same as SOC 310).

WS 316 Science, Technology & Values (3) Impact of science and technology on various philosophical issues. Through a variety of readings that exemplify the field's content, students will examine the social, political, aesthetic, ethical, economic, and environmental constructs that shape modern institutions in science and technology. (Same as PHIL 316)

WS 319 European Women's History (3) Study of European women from pre-history to the 20th century with emphasis on women's social and cultural roles in western history. Current feminist theory is also studied. (Same as HIST 319)

WS 320 Cross-Cultural Study Of Women (3) Comparative analysis of women's roles and women's lives in different societies. Topics include women's status, life stages, gender roles, images of women and power. (Same as ANTH 320)

WS 321 Social Stratification (3) The causes and consequences of institutionalized social inequality. Pre: SOC 100 or instructor's consent. (Same as SOC 320).

WS 324 Culture, Sex And Gender (3) A cross-cultural examination of the development of gender systems and gender roles. Consideration of sex roles and activities as part of the larger gender system. Pre: ANTH 150 or 205 or instructor's consent. (Same as ANTH 324)

WS 325 Psychology Of Women (3) Issues and topics relevant to the psychological development and functioning of women including sex differences in abilities and behavior, achievement motivation, work, sexuality, pregnancy, childbirth and motherhood, mental health and



domestic violence. Pre: PSY 100. (Same as PSY 325)

WS 327 Law and Identity (3) In this course, will politically engage with the legal construction of who we are as individuals and our presence within different communities. The relationship between law and identity involves politically contested frameworks of sexuality, gender, race and ethnicity, ability, and ownership according to both judicial doctrine and contemporary scholarship. As these frameworks shift and evolve, the politics of legal identification

WS 328 Gender, Crime, and Justice (3) This course will examine theoretical perspectives on gender, crime, and the criminal justice system. Students will analyze the intersecting roles played by gender, race, and class in criminal offending, victimization, and institutional responses. Additional topics may include masculinity and crime, women and punishment, female delinquency, gender violence, sex work, and the role of women in the criminal justice system. Pre: Soc 100 or WS 151 (Same as SOC 328).

WS 331 Queer Studies & Contem Society (3) A review of current issues using queer and sociological perspectives on sexualities and social change. Pre: SOC 100 or WS 151 or permission of instructor. (Same as SOC 331)

WS 332 Politics of Race & Gender (3) 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. (Same as POLS 332).

WS 340 Socialization & Identity (3) The process by which an individual becomes a functioning member of society. Pre: SOC 100 or instructor's consent. (Same as SOC 340).

WS 342 Sociology of Human Aging (3) 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 instructor's consent. (Same as SOC 342).

WS 352 Gender and Sexuality (3) An interdisciplinary exploration of concepts, constructions, and behaviors associated with gender and sexuality. Course materials examine historical, contemporary, and cross-cultural definitions and expectations, and correlations with social power and hierarchies. In addition, the course aims to illuminate the multiplicity of personal and social identities relating to sex, race/ethnicity, class, age, etc.

WS 355 Women in Modern Lit & Film (3) Literature and film by and about women from 1900 to the present. Feminist literary theory. Pre: ENG/ESL 100 and 200-level literature course or college level Women's Studies courses or instructor's consent. (Same as ENG 355)

WS 356 Language and Gender (3) Students engage in the analysis of gender as it relates to language and society. Provides students with analytic resources for thinking critically about the relationship between language and social practice. Students gather and analyze data based on current theories. Pre: ENG/ESL 100 or 100T and LING 102, or consent of instructor. (Same as ENG 356, LING 356)

WS 357 Women and Religion (3) (other) Examines roles of, and attitudes towards, women in various religious traditions. Through both chronological and comparative approaches, explores depictions of women in scriptures and other primary texts as well as women's contributions to each tradition.

WS 358 Women in Christianity (3) Examines issues relating to sex and gender throughout the history of Christianity. Emphasizing primary texts, the course will explore writings by Christian women and Christian writings about women. (Same as HIST 358)

WS 359 Music and Activism (3) An exploration of the ways in which music has been used to create and support social change. The role of music in movements involving resistance, protest, and activism for political, social, and environmental justice, both in the U.S. and globally. (Same as MUS 359)

WS 360 American Women's History (3) Study of American women from the 17th to the 20th centuries. Special emphasis on women's social and cultural roles. Current feminist theory is also studied. Pre: HIST 151, 152 or instructor's consent. (Same as HIST 360)

WS 361 Feminism in Japan (3) A historical survey of Japanese women and feminism focusing on Japan's changing aspects from the ancient to the contemporary periods. The course questions the current popular Western image of the subservient Japanese women and articulates the role of Japanese women in Japanese society. (Same as JPNS 361 and JPST 361) (Attributes: HPP)

WS 363 Globalization, Gender, Fashion (3) Focus on the sociological significance of the garment and fashion industry, consideration of gender and globalization in the processes of production, consumption and resistance. Pre: SOC 100 or WS 151 or instructor's consent. (Same as SOC 363) (Attributes: GCC)

WS 368 Latin American Women's Lit (3) Latin American women of the 20th century have lived in vastly different conditions and upheaval spanning feudalism to postcolonial thought. From genocide to authoritarian institutions of torture, Latin women have had to endure turmoil and violent clashes of ideas. This course captures the Latin perspective of four different sociological spaces that women occupy in Latin America: the Indigenous space, the patriarchal latifundio, the mestizo space of markets, and the professional woman under the military governments. Latin American and French feminist theories are used to clarify these contexts. (Same as SPAN 368).

WS 369 Crit Anal Lat & Hisp Film (3) This course will engage students in Latin and Hispanic films in the context of their perspectives, providing an excellent window into culture and language. The student lives in a global world today in which expansion of mindsets must become elastic with the practice of cultural exposure and analysis. (Same as SPAN 369)

WS 375 Feminist Philosophy (3) Exploration of the feminist contributions to traditional philosophical questions in metaphysics, epistemology, and ethics, as well as examining the philosophical implications of the intersections of race, class, gender and sexuality. (Same as PHIL 375)

WS 377 Feminist Social Theory (3) This course offers a survey of key feminist perspectives (intersectionality, post-colonialism, indigenous) that highlight a sociological examination of gender inequity in global society. Pre: SOC 100 or WS 151 or consent of instructor. (Same as SOC 377)

WS 378 N. Amer Indig Cultr Survival (3) (lecture/other) This course will cover a broad swath of Native American history from the past few hundred years in the context of cultural survival and resistance. The course will begin with a short background in Native American history, but will be more specifically focused on various examples of resistance and incorporation. (Same as HIST 378).



WS 382 Qualitative Research (3) Introduction to the ethics, methodologies, and practice of research in human geography, particularly standpoint epistemologies and associated methodologies. Combines lectures, workshops, and assignments. Students will conduct and report upon their own research. Pre: GEOG 103 or 102 or WS 151 or consent of Instructor. (Same as GEOG 382).

WS 385 Women & Health (3) Reproductive health, immune activity, autoimmune disease, and mental health in women are covered from physiological, psychological, historical and cross-cultural perspectives. Pre: PSY 100. (Same as PSY 385)

WS 391 Intern Gender & Women Studies (3) Application of knowledge and skills in a field placement or engaged scholarship project setting. May be taken for a total of 12 credits, only 6 of which can be applied to the major or three to a minor. Pre: WS 151, instructor's consent. (Attributes: ALEX)

WS 392 Japanese Women (3) History of women in Japan from the earliest historical eras, including the Heian aristocracy and evolving samurai culture, through the present. Topics include property rights, family structures, the influence of religion and secular philosophies, effects of political and legal changes, women's role in the economy and its effect on their status and lives, and women's activism. (Same as JPST 392, HIST 392). (Attributes: GAHP)

WS 393 Normality, Abnormality & Soc (3) Philosophical study of how human diversity interacts with social norms. Topics include health and illness, disability, gender and sexual orientation. Perspectives from biology and the social sciences are included in a study of how beliefs about normality vary between cultures, change through time and affect human relations. Pre: Previous work in Philosophy. (Same as PHIL 393)

WS 401 Women in Hawaiian History (3) (lecture/other) This course examines the lives and contributions of women in the history of Hawai'i. It considers how events such as the arrivals of foreigners, dismantling of the kapu system, the mahele, epidemics, political changes, world wars, etc., affected the social and cultural lives of women, men, children, and families. Course materials seek to understand how those gendered as "feminine" negotiated, accommodated, and resisted these changes over the last two centuries. (Same as HIST 401). (Attributes: GAHP)

WS 407 Gender Inequality in Pop Culture (3) Exploration of gender and sexuality as systems of inequality, as social constructions, as performance, and as dynamic forces within American popular culture. Students develop skills to sociologically research and analyze artifacts of popular culture. Pre: SOC 100 or WS 151 or instructor's consent. (Same as SOC 407).

WS 408 Island Feminism (3) The course considers the specific geographical, social, and cultural aspects of islands societies and how gender, sexuality, and race/ethnicity shape them in the context of globalization. Pre: SOC 100 or WS 151 or consent of the instructor. (Same as SOC 408)

WS 409 Seminar in Social Movements (3) An exploration of the ways in which social movements have shaped politics, policy and social culture in the United States. Students will research and analyze historical and contemporary social movements. Pre: SOC 100 or WS 151 or instructor's consent. (Same as SOC 409)

WS 411 Family & Gender in Oceania (3) (lecture/other) With a focus on the 19th and 20th centuries, this course examines how historical changes affected the social and cultural lives of women, men, children, and families in Oceania. Throughout the course we will

endeavor to explore gendered reconstructions of particular events in the history of the Pacific: historiography, exploration, disease & depopulation, missionization, education, imperialism, colonization and decolonization in general. (Same as HIST 411). (Attributes: GAHP)

WS 420 Family Communication (3) Foundational concepts and theories are introduced. Communication dynamics within families are explored. Narrative, functional, interpretive, and systems approaches to family communication are included. Cultural influences are examined. Conditions necessary for optimal family functioning are addressed. (Same as COM 420)

WS 423 Post-Colonial Literature (3) A critical analysis of the development of contemporary world literature in the wake of the fall of European empires. This class is designed to address the importance of writing in an age of changing national identities, shifting alliances, and volatile conflicts. Texts from African, Latin American, the Middle East, the Caribbean, and Hawai'i will be features. Pre: ENG 300 or instructor's consent. (Same as ENG 423).

WS 430 Gender, Place and Environment (3) Survey of trends in geography of gender related to place, space and the environment. Addresses spatial interactions of gendered bodies of different ages, class and ethnicities. Pre: junior or senior standing or instructor's consent. (Same as GEOG 430). (Attributes: ALEX, GCC)

WS 442 Romantic Literature (3) Poetry and prose from 1780 to 1832. Pre: C or better in ENG 300 or instructor's consent. (Same as ENG 442).

WS 448 Graphic Novels & Comics (3) Advanced study of major developments, schools and styles in contemporary graphic novels and comics. Emphasis on literary theory and analysis. Pre: C or better in ENG 300 or instructor's consent. (Same as ENG 448)

WS 461 Race and Gender in Media (3) This course explores the dynamic interactions between race, gender and the mass media. Specifically, it examines media representations of race and gender and their cultural, sociological, and psychological effects in the society. Pre: COM 260, 360 or instructor's consent. (Same as COM 461).

WS 480 Women and Rhetoric (3) Survey of key female figures that have figured (or not figured) into the rhetorical canon. Analysis of women's use of rhetoric in everyday life and at historic moments and consideration of methodological and theoretical issues intersecting women, rhetoric, and historical research. Pre: C or better in ENG 300 or instructor's consent. (Same as ENG 480).

WS 486 Women in Ancient European Civi (3) Study of European women up to the year 800, with primary focus on the Mediterranean Basin. Themes encompass religion, social customs, and economic activities. Pre: HIST 319 or 323 or 341 or 356 or 360; or consent of instructor. (Same as HIST 486).

WS 495 Women's Studies Seminar (3) (other) Capstone seminar to be taken in the senior year (or as a second-semester junior). Readings, discussions, presentations, and guest lectures involving advanced analysis of theories about social systems and women's lives. Seminar will facilitate student's application of theoretical material and research toward particular areas of interest. Seminar topics may vary from year to year. Pre: WS 151; 6 credits of upper-division WS courses or instructor's consent.

WS x94 Special Topics in Subject Matter (Arr.) Special topics



chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

WS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Graduate Education General Information

UH Hilo Graduate Division College of Business and Economics

Building, Room 206

Tel: (808) 932-7926

Email: hilograd@hawaii.edu

Website: hilo.hawaii.edu/academics/graduate/

UH Hilo currently offers several graduate and professional programs. Information on admission policies and procedures, tuition and fees, registration, and degree requirements can be found in the following sections.

- [Graduate Admission Policies](#)
- [Registration and Degree Requirements](#)
- [Requirements for Candidates for Masters Degrees](#)
- [Requirements for Candidates for Doctoral Degrees](#)
- [Graduate Student Rights and Responsibilities](#)

Graduate Admission Policies

The University of Hawai'i at Hilo is an equal opportunity institution of higher education and does not discriminate on the basis of race, gender, sexual identity, age, disability, religious affiliation, or country of origin.

Students are expected to be familiar with and follow the guidelines and policies set forth in the UH Hilo Catalog and [Graduate Student Handbook](#). Students are ultimately responsible for selecting courses appropriate to the program degree objective.

Professional programs' policies may vary slightly from graduate program policies. Please check with your program chair for details.

Application Requirements

Note: The following requirements are the **minimum** requirements for any UH Hilo graduate program. Particular graduate programs' requirements may differ from the minimum. Therefore, prospective students must also check the requirements of their program of interest.

Applicants applying for admission to graduate programs must submit the following items (except for the app and fee) directly to the Graduate Division:

1. A completed application form and appropriate fee. The application form and fee information are available online from the Admissions Office.
2. One official transcript from each post-secondary institution attended. These transcripts must be sent directly from the institution or submitted by the applicant in a sealed institutional envelope if accompanying the application. Transcripts from within the UH system are not required.
3. Official Graduate Record Examination scores or other qualifying test scores as determined by the program (check admissions requirements in each program description). International applicants whose native language is not English, or who have not attained a baccalaureate or higher degree from an English-speaking institution,

also must submit TOEFL or IELTS scores.

4. A minimum of three letters of recommendation attesting to the academic ability or other qualifications of the applicant.
5. Statement of academic and/or long range goals.
6. Verification of financial status (for all international students).

International Applicants

In addition to the above requirements, international applicants must submit official academic records in the original language accompanied by certified English translations. These translations must bear the embossed seal or inked stamp of the issuing institution or government agency and the original signature of the translator. Translations must be complete and exact word-for-word translations of the original documents. International applicants with a Grade Point Average of less than a B (or equivalent) in their undergraduate work or less than a B in 12 or more credits of post-baccalaureate work are not eligible for admission.

Minimum Qualifications for Acceptance

Baccalaureate Degree

Each applicant must hold a baccalaureate degree or graduate degree from a regionally accredited U.S. college or university, or its equivalent from a recognized non-U.S. institution of higher learning. The standards of the degree in question must be equivalent in scholarship requirements to those maintained in the undergraduate program at the University of Hawai'i at Hilo.

Graduate Record Examination (GRE)

The GRE is required for most applicants for consideration of acceptance. Some programs may require a professional test specific to the program of study in lieu of the GRE for admission purposes. Minimum scores on the GRE or professional tests are set individually for each program. Applicants who have completed a graduate program at a regionally-accredited U.S. institution or its equivalent from a recognized non-U.S. institution are not required to submit GRE scores.

Test of English As A Foreign Language (TOEFL)

In addition to above requirements, an applicant whose native language is not English must demonstrate English language proficiency as a partial admissions requirement. Evidence of proficiency in English is successful completion of the Test of English as a Foreign Language (TOEFL) with a minimum score of 550 (paper version), 213 (computer version), or 79 (internet version). The minimum IELTS score is 6.0. Applicants who have baccalaureate degrees from English-speaking institutions are exempt from the TOEFL requirement.

International Transcripts: Transcripts from international institutions where a bachelor's degree was awarded must be submitted to a transcript evaluation service. See [International Transcript Information](#) for more info.

Please plan ahead to allow adequate time for processing of the evaluation of international transcripts, which may take a month or longer.

Grade Point Average (GPA)

The applicant must have a GPA of 3.0 or the equivalent from the last 60 semester credits (or equivalent) in the undergraduate degree completed,



or must hold a graduate degree with a GPA of 3.0 or better in his/her graduate program. **Please note: The meeting of minimum requirements does not assure acceptance into a UH Hilo graduate degree program. Acceptance into a graduate program is competitive and decided upon by each individual graduate program.**

Classification of Students

Regular Admission

Regular admission may be granted to applicants who hold a baccalaureate degree with a grade point average (GPA) of 3.0 or better for the last 60 semester credits (or equivalent), or who hold a graduate degree with a GPA of 3.0 or better from an accredited institution. Determination of acceptance, however, is made by the admissions committees of individual programs. Students accepted by program admission committees are defined as "classified students."

Provisional Admission

An applicant whose GPA in the last 60 credits (or equivalent) falls between 2.75 and 2.99 may be admitted under provisional status. To be accepted, the applicant must have program approval and otherwise meet program requirements. Some conditions may apply; the student will be notified at the time of acceptance of any conditions in place.

Denied Admission

Students whose academic records do not meet the minimum requirements, whose applications are incomplete, and/or whose admission is not supported by the program and the Graduate Division, will be denied admission.

Visiting Graduate Student

Applicants who are pursuing an advanced degree at another institution and who wish to study at UH Hilo for a limited time may apply for admission as visiting graduate students. To be eligible, applicants must be enrolled in and actively pursuing a graduate degree program at a regionally accredited institution of higher education or an equivalent degree at a recognized non-U.S. institution of higher learning, and be in good academic standing. Current transcripts from the home institution must be provided in order to determine academic standing and eligibility for specific classes at UH Hilo.

Visiting graduate students register on a space available basis and only in courses for which they are judged to be eligible by the instructor of the course and the chair of the individual graduate program. Visiting graduate students are limited to two semesters of study. Visiting graduate students will be asked to sign and return a contract upon acceptance agreeing to the two semester limitation.

Visiting graduate students must provide the same application materials as applicants for regular admission: the application, the application fee, statement of research interest/goals in the program, resume, three letters of recommendation, and official transcripts from all colleges and universities attended. The exception is that visiting graduate students do not need to provide official GRE scores. The program chair must approve their acceptance into the program. Visiting graduate students will be accepted as "classified graduate students."

Visiting international graduate students must comply with certain application and enrollment regulations in order to qualify for an I-20

certificate of eligibility, which permits them to request an F-1 student visa. Regulations include providing a copy of a current passport, providing proof of adequate financial support, and maintaining full time enrollment (6 credits per semester) while at UH Hilo. [Please contact the Graduate Division](#) for details.

Admission as a visiting graduate student does not guarantee subsequent admission as a regularly admitted graduate student. A visiting graduate student who decides to apply for admission as a regular graduate student must apply for acceptance via the standard admissions process as do all other applicants. Visiting graduate students who later become admitted as regular students may request to have courses taken under the visiting student status credited toward the new degree objective. They should consult with their graduate programs. The visiting student will submit the [Petition to Transfer, Substitute, and/or Waive Courses](#) form to the Graduate Division. The form must be signed by the student, the primary advisor (if applicable), and the program chair.

Unclassified Graduate Student

Students with documented baccalaureate degrees who do not meet the minimum requirements for admission to a program, or who for any other reason have not been formally accepted into a program, may attempt to register for selected courses. Such registration is done on a space-available basis, and is with the written consent of both the faculty teaching the course and the chair of the program. **Admission into a course as an unclassified graduate student does not guarantee admission as a regularly classified graduate student at a future date. A limit of 9 credit hours** at UH Hilo may be taken at the graduate level by unclassified graduate students in their academic career. Waivers to this rule may be granted with the permission of the instructor and the graduate program chair using the form [Permission to Enroll in Graduate Coursework as an Unclassified Student](#).

Applicants who are sponsored by an educational institution or governmental agency and who wish to undertake a special program of study, research, or training without a degree objective may apply as unclassified graduate students. These students also are limited to 9 credit hours at UH Hilo.

All applicants for unclassified graduate student status are required to submit the following:

1. A graduate application;
2. Proof of baccalaureate degree;
3. A brief statement of objectives specific to each class in which the applicant hopes to enroll.

Unclassified graduate students are not required to submit the application fee, GRE scores, or letters of recommendation. If an unclassified graduate student later applies, and is accepted, into a graduate program, the student may petition for acceptance of credits taken while in unclassified status, **but acceptance of the petition by the graduate program is not assured.**

Undergraduate students with Senior standing and with a GPA of at least 2.5, before being granted a baccalaureate degree may petition to take graduate coursework for credit in the status of an Unclassified Graduate Student. Permission must be received from the student's academic advisor, the graduate course instructor, and graduate program chair. This coursework must be in excess of the requirements for the baccalaureate degree. Failure of the student to obtain the baccalaureate degree at the end of the semester in which the graduate coursework is undertaken will invalidate any graduate credits from the coursework. Students must present evidence of successful completion of the



baccalaureate degree to the Graduate Division Office. Completion of graduate coursework does not guarantee future admission to a UH Hilo graduate program. Submit the completed form [Permission to Enroll in Graduate Coursework as an Undergraduate Student](#) to the Graduate Division.

Additional Considerations

Concurrent Degrees

An applicant may apply to more than one graduate program but may enroll in only one program initially. Concurrent enrollment in more than one program is strongly discouraged. The individual programs applied for, however, will determine individually what constitutes the minimum course load, and the student (with the approval of both program chairs) may decide to attempt both programs.

Reapplication

Applicants who have been denied admission to a graduate program at UH Hilo because of failure to meet academic standards may reapply for admission after completing at least 12 semester credits of post-baccalaureate course work. The courses must be numbered 400 or above and completed with a GPA of 3.0 or above.

Completion of additional course work does not guarantee admission. To be reconsidered for admission, applicants must follow the standard application process and will be considered along with all other applicants. If admitted, no more than 12 semester credits of relevant post-baccalaureate course work may be applied toward the new degree objective.

If Admitted, But Not Enrolled

Admission may not be postponed or deferred. Newly-admitted students who do not register during the semester for which they are admitted or who withdraw from all courses before the last day to drop are considered no-shows. Their admission status will be rendered invalid. To reapply for admission, they must contact the Graduate Division for instructions.

Returning Student

If a student has not registered continuously, that student must reapply for admission. Readmission is not guaranteed.

International Student Documents

International student documents are processed by the Graduate Division in consultation with the International Admissions Officer. Visa questions will be handled by this office.

Graduate Admission Procedures

The Graduate Division is responsible for accepting application materials for all graduate programs not administered by the College of Pharmacy. The Graduate Division screens each application for minimum qualifications and distributes completed applications to each respective program for decision of acceptance or rejection. The admissions committee within individual programs will make the final decision on applications that meet minimum university qualifications.

For programs with summer or fall semester initial enrollment, the priority application deadline for receipt of all application documents varies by program, and ranges between December 1 and January 1. Applications

that are complete as of the program's specific priority deadline receive priority consideration for acceptance. The application deadline for spring semester admission, if appropriate, is November 1. Applications received after the priority deadlines will be considered on a space available basis. Each applicant will be notified of receipt of the application. Incomplete applications will be held in the Graduate Division until complete and ready for review by the graduate program. Applications that remain incomplete at the end of the selection process will be labeled as "incomplete," and applicants will be denied admission. Applicants will be notified of this action. Specific priority deadlines are posted under the program's Checklist and on the [Graduate Program home page](#).

Official notification of acceptance or rejection generally is mailed by the Graduate Division between January 1 and May 30 for summer and fall admission. For spring admission, notification is generally mailed between November 15 and December 15. Applicants should not make definite arrangements to attend the University until they receive formal notice of acceptance from the Graduate Division.

Evaluation of transcripts of international students and of non-traditional grading will be done at the program level if the applicant meets other minimum qualifications. The Graduate Division and Office of Admissions will help with interpreting unusual grading practices and other special cases.

Graduate Tuition and Fees

Tuition for the 2017-2018 Academic Year

Graduate students other than Pharmacy and Nursing

Classification	Per Credit Hour	Full Time
Resident	\$ 479	\$ 5,748/semester
Non-resident	\$ 1,097	\$ 13,164/semester

Pharmacy Doctoral Students

Classification	Per Credit Hour	Full Time
Resident	\$ 984	\$ 11,808/semester
Non-resident	\$ 1,690	\$ 20,280/semester

Graduate Nursing Students

Classification	Per Credit Hour	Full Time
Resident	\$ 781	\$ 9,372/semester
Non-resident	\$ 1,558	\$ 18,696/semester

Tuition for Summer 2018

To be announced in the spring semester following each summer session.

Fees for the 2017-2018 Academic Year (Per Semester)

	Fee	1+ credits
Student Publications		\$ 28.50
Student Activities		28.50



	Fee	1+ credits
Student Association		28.50
Campus Center		29.50
Media Broadcasting		24.00
Student Health		7.00
Student Life Center		78.00
Total:		\$ 224.00

Application Fee

A \$50 fee is required for all applicants. This fee is not refundable, not transferable to another semester, and is required each time an application is submitted.

Late Registration Fee

Students will be assessed a \$30.00 fee for registering during the late registration period, which begins on the first day of instruction.

Special Fees and Charges

Fee/Charge	Amount
Student Identification Card	\$ 10.00
Graduation Application Fee	15.00
Transcript of Record	5.00
Rush Transcript	15.00
Institutional Credit by Examination	15.00
Replacement of laboratory equipment	Cost of item(s) broken or lost

Registration and Degree Requirements

Registration

Entering graduate students register during the official registration period posted in the [registration timetable](#) for the relevant semester. Students may also register just prior to the start of fall classes, or in the case of programs that begin in the spring, or summer just prior to the beginning of the semester. Continuing graduate students are encouraged to participate in early registration whenever possible. Graduate students must meet general guidelines and payment schedules set by the university.

Full-Time Registration Requirements for Students

Graduate students must register for six or more credits during the Fall or Spring semesters and, when applicable, three credits during the summer to be considered full time.

Academic Standards

A cumulative grade point average (GPA) of at least 3.0 (on a scale where A = 4.0) in courses required by the graduate program is required in order to maintain satisfactory academic standing and graduate degree certification. When the cumulative GPA falls below 3.0, the student will be placed on academic probation. Once a student is placed on probation, the student has two semesters to attain a cumulative GPA of 3.0 or higher, or the student will be dismissed.

No credit is granted for graduate courses in which a grade lower than a B- has been received or in the case where courses are evaluated as either credit/no credit, where credit is given. Grades lower than a B-, however, will appear on the student's transcript and will be computed into the student's GPA, although the student may **not** use the course for degree requirements.

Graduate students who do not meet other academic/program standards will be dismissed from their graduate program. This process entails a warning letter from the chair of the graduate program to the student. If the necessary academic standards are not attained within a period specified by the graduate program, the graduate program's chair recommends to the appropriate Dean that the student be dismissed from the program. Students will be notified of the intended action. Appeals of such action may be made in writing to the Vice Chancellor for Academic Affairs (VCAA) within ten business days.

Graduate Committees and Primary Academic Advisors

With the exception of certain professional programs, most graduate programs utilize a graduate committee system for advising and evaluating graduate students. At the Master's level, the committee is comprised of a minimum of three faculty members. One member will chair the committee and serve as the student's primary academic advisor. At least two members of a student's graduate committee must be full time tenured or tenure track faculty at UH Hilo.

For students in a non-thesis option, the graduate committee serves as an examination and evaluation body of the student's requirements as listed by the graduate program. For students utilizing a thesis option, the committee serves as the thesis committee. Acceptance or rejection of a student's work as fulfilling degree requirements is determined by a majority of the graduate committee.

Some professional programs may not utilize a graduate committee system. In these cases, a designated faculty member serves as the student's primary academic advisor. Acceptance or rejection of a student's work as fulfilling degree requirements is determined by a majority vote of the graduate program's faculty.

Minimum Residence Credits for Degree Certification

Regardless of any previous graduate experience, a minimum of 24 credit hours must be taken at UH Hilo before a degree can be granted. This is known as the "residence requirement," and applies to all graduate degree programs at UH Hilo. At the graduate level, a maximum of six credit hours earned under courses designated as "thesis" may be counted toward the Graduate Division's minimum residence requirement. Students continuing their studies for a doctoral degree in the same UH Hilo program from which they earned their masters' degree need not fulfill a second residence requirement.

Minimum Credits in Graduate Level Courses

Students are required to complete a minimum of 24 credits in courses at the graduate level before a degree may be granted. Specific graduate programs may require additional credits at the graduate level; students are advised to read program requirements and discuss them with their primary graduate advisor.



Use of Undergraduate Courses for Graduate Credit

Graduate students may take up to six credits in 400-level courses toward their graduate degree requirements with the prior approval of the primary advisor, graduate program chair and the Graduate Division. Courses numbered 499 may not be used for graduate credit. Credits used to meet requirements for an undergraduate degree may not be used to meet graduate program requirements. To register for 400-level courses, complete the [Petition to Transfer, Substitute, and/or Waive Courses](#) form and submit it to the Graduate Division.

Dual Level Courses

Some courses are dually listed at the 400- and 600-level. Courses identified by graduate programs as core courses are not eligible as dual level offerings. For dual level courses, credit in the graduate course is not available to students who have received credit in the corresponding undergraduate course.

Dual level courses must be evaluated as a unit based upon their specific content, including specification of differences in expectations for undergraduate and graduate students. Courses that have changing content from semester to semester, such as those ending in the numbers -94, -97 and -98, are not eligible for use in dual level offerings.

Overload Policy

Students may register for up to 15 credits without the approval of the graduate program chair. Any course load above 15 credits requires approval by both the graduate program chair and the Graduate Council Chair as indicated on the [Student Overload Approval Form](#). After obtaining the approval of the graduate program chair's signature the form must be submitted to the Graduate Division for the Graduate Council Chair's signature; the form is then submitted to the Office of the Registrar. The Overload Form must be approved before the end of the add deadline, and will be retained in the student's file in the Graduate Division.

Incomplete Grades

An instructor may assign an Incomplete (I) when a student has done most of the course work satisfactorily but because of unforeseen circumstances has not completed all course requirements. The Incomplete is not for the purpose of converting a failing grade, or unsatisfactory work, to a passing grade. Incomplete grades should not be given to allow students to extra credit work to raise their grades. The student must request the Incomplete option from the instructor, but it is the instructor's decision whether or not to approve the request. 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 then the instructor who assigned the "I" can change it to the appropriate grade using the Change of Grade form, taking the completed work into consideration. In exceptional circumstances, the division chairperson or the dean can change an "I" grade using the Change of Grade form.

If the coursework is not completed by the deadline, the "I" grade for graduate students will become an "NC" or "No Credit". The instructor may set a deadline sooner than that listed in the University calendar, reflecting the instructor's availability to extend his/her commitment

beyond the course. The time limit for Incomplete removal prevails whether or not the student maintains continuous enrollment. Some departments and programs may have more restrictive policies regarding incomplete grades.

The incomplete policy has specific implications for students receiving tuition scholarships and other kinds of financial aid and for international students holding visas. Graduate students who receive federal or state aid may lose their eligibility if they receive Incompletes. See the [Financial Aid Satisfactory Academic Progress Policy](#).

All courses taken by graduate students are subject to the above policy.

Incomplete grades must be resolved before students can receive a graduate degree..

Updated 12/2017

Repeating Courses for Credit

A few graduate courses (numbered 500 and above) are repeatable for credit. Examples include thesis research and courses that are approved via the curriculum review process as "repeatable for credit" (e.g. Special Topics classes).

Retaking Courses for a New Grade

With the exception of courses that are explicitly repeatable for credit (see above), graduate courses cannot be retaken unless approved by the program chair and graduate division **prior to registration**. With the permission of the primary advisor and the graduate program chair, courses may be retaken, but not for additional credits. No more than two courses may be retaken, and no graduate level course may be retaken more than once during the student's graduate career. The grade received will be averaged with the previous grade in that course in computing the UH Hilo cumulative grade point average (GPA). For graduation purposes, however, a program grade point average may be computed which includes only the grades earned in the courses that are part of the student's graduate program. A statement which specifies the recomputed program GPA will be reflected on the student's academic records and transcript. Submit the completed [Graduate Repeat Course Notification Form](#) to the Graduate Division where the final signature will be obtained.

Continuous Registration

All students admitted to a degree-granting program must maintain continuous registration each semester for at least one credit hour. Students who do not register will be removed from the graduate program and will be required to reapply to the Graduate Division. Students do not need to maintain matriculation during the summer session unless final degree requirements are to be completed during this period. Students must be registered during the semester when the degree is granted.

Leave of Absence

Under exceptional situations, students may apply for a [Leave of Absence](#). Students on leave are excused from the registration requirement during the period of the leave. Leaves are normally granted for six months with an extension of 6 months for a total of up to one year. A Leave of Absence is granted only in exceptional circumstances, such as illness or other unusual personal hardship, and requires detailed justification. Leaves of Absence are not granted to students who wish to absent themselves to undertake thesis or dissertation research elsewhere. If



possible, requests for Leaves of Absence should be submitted one month prior to the semester for which the leave is requested. Students must submit a [Returning Student Application](#) to the Graduate Division upon return.

Withdrawals

Students who withdraw from courses for which they are registered at the University must follow a formal withdrawal procedure if they wish their record to indicate good standing. *Absence from class does not constitute due notice of withdrawal.* No grades are recorded for students who formally withdraw by the listed withdrawal date that is noted in the Catalog. Withdrawal from all classes after the listed withdrawal date may be granted, but only in exceptional circumstances, such as illness or other unusual personal hardship, and requires detailed justification. Withdrawal from classes may affect financial aid eligibility. See the [Financial Aid Satisfactory Academic Progress Policy](#) in the [UH Hilo Guide to Financial Aid](#). For international students, student visas require that students be registered full time 6 credits in Fall and Spring; 3 credits in Summer (if the student chooses to attend classes during the summer). Withdrawal from courses may result in a failure to meet visa requirements.

Transfer of Graduate Credits

Students matriculated in advanced degree programs must petition to have previously earned graduate credits from other institutions transferred toward their University of Hawai'i at Hilo graduate degrees within their first semester at UH Hilo. Using the Graduate Division's [Petition to Transfer, Substitute, and/or Waive Courses](#) form, students submit this petition to their graduate program. A copy of the official transcript from the other institution must be on file with the Graduate Division, and a course description or syllabus should be provided by the student.

Credits petitioned for transfer must be relevant to the student's UH Hilo degree program, must have been earned at a regionally accredited university, must not have been used to satisfy the requirements of another degree, and must have been earned in graduate-level courses for which the student earned at least a B. In cases where a graduate student wishes to take graduate coursework elsewhere for transfer credit during their tenure at UH Hilo, the course work must be **pre-approved, using the [Petition to Substitute, and/or Waive Courses](#)**, by the student's primary academic advisor and graduate program chair. Petition for transfer of these credits must be completed within a semester of completion of the course work, and will otherwise be subject to the same regulations as credits petitioned for transfer from before the student's acceptance to UH Hilo.

Credits earned through correspondence courses or through courses or experiences offered under the auspices of proprietary schools, business or industrial training programs, or schools conducted by federal agencies such as the Department of Defense normally are not considered for transfer.

Courses taken more than five years prior to matriculation on in the Graduate Division are accepted only when the graduate program chair attaches a statement justifying the transfer.

The graduate chair in the student's program forwards all approved petitions to the Graduate Division or designee for final approval. Approved transfer credits will be included on the student's official Graduate School transcript as a single entry of total credits accepted in transfer. Letter grades from transfer credits are not considered in the

determination of grade-point average.

Limitations on the number of credits acceptable in transfer are set in the first instance by the minimum residence requirement of 24 credit hours for any advanced degree; transfer credits cannot be applied toward the residence requirement. For example, for a master's program requiring a minimum of 30 credit hours, no more than six transfer credits may be applied toward the degree. When graduate programs require more than 30 credit hours, the Graduate Division or designee may accept a correspondingly larger number of transfer credits.

Policy Prohibiting the Awarding of a Second Degree in the Same Field

The UH Hilo policy is that a second degree at the same level (master's or doctoral) can be awarded only when a significant amount of additional coursework in a different field is completed. Normally students who have already earned a master's or doctoral degree in a given discipline at either a foreign or U.S. institution may not earn a second degree in a similar field at the same level from UH Hilo.

Transcript Notations of Approved Concentrations Within a Major Program

For each advanced-degree recipient, approved concentrations, or specializations, may be listed on the official graduate transcript, along with the graduate major. Such listings are limited to two concentrations. In addition to the titles of approved and satisfactorily completed majors and concentrations, official graduate transcripts show the titles of doctoral dissertations and master's theses. All such special transcript listings are made only at the time of completion of final degree requirements.

Courses Taken in Other Graduate Programs at UH Hilo

Graduate students may take courses offered by other graduate programs at the university with the consent of the course's instructor. These other courses may count toward the student's degree program only with the authorization of the student's graduate program, and this authorization must be obtained before the student registers for the course.

Waiver of Regulations and Requirements

Some Graduate Division regulations and/or program requirements may be waived by the VCAA or designee in exceptional individual instances. A petition for waiver must be endorsed by the student's graduate program committee or graduate chair, who append their reasons for believing that the waiver request would not breach the spirit of the specified regulation or requirement.

Requirements for Candidates for Masters Degrees

Advising and Guidance from the Graduate Committee

At the beginning of a student's work toward the master's degree, the chair of the student's graduate program, in consultation with the student, designates a primary academic advisor. The primary academic advisor may be the chair of the graduate program or another faculty



member. This advisor also may serve as chair of the student's graduate committee. The graduate committee, when required by the program, will consist of a minimum of three members who meet periodically with the student to discuss his or her progress.

Requirements for a Master's Degree

The Catalog stipulates the specific requirements for a master's degree in each program of the University. The minimum requirements include the following:

1. Students must maintain continuous registration, including the semester in which the degree is awarded.
2. Students must complete at least 24 credit hours of graduate coursework in residence. A minimum total of 30 credit hours of graduate coursework are required for all master's degrees. A maximum of six hours of transfer credit is allowed for programs requiring 30 credit hours; additional credit hours may be accepted for transfer if more than 30 credit hours are earned, as long as the 24 credit minimum in residence is maintained.
3. Graduate students must maintain at least a B average in courses approved by the program or graduate committee and presented for the degree.
4. Students must fulfill all departmental or school course requirements. (No credit is granted for graduate courses in which a grade lower than a B- has been received).
5. Students must complete all other requirements as listed by the specific graduate program.
6. Students must complete all requirements, including thesis if required by the program, within five years after admission to the Graduate Division.

There are specific [Graduate Level Forms](#) (Form 1, Form 2, Form 3) used to mark the student's progress through the graduate program; they are available online through the Office of the Registrar's website. They should be completed in collaboration with the primary academic advisor and submitted within the stated deadlines. Other useful forms are also posted at this site.

All graduate level forms are submitted to the Graduate Division, with signatures as noted. The Graduate Division obtains final signature(s) and submits forms to the Office of the Registrar.

Examination

If a general examination is required for the student's master's degree, the examination may be written, oral, or a combination of both. The decision for pass or fail shall be by majority vote of the graduate committee in programs that utilize a graduate committee. In programs that do not use graduate committees, the program faculty by majority vote shall determine whether the student has passed or failed.

Thesis

Evaluation

If a thesis is required for the student's master's degree, the graduate committee, or the program faculty in programs that do not use graduate committees, will supervise and approve the thesis. Programs may designate additional examiners for the master's thesis beyond the student's graduate committee. Students must receive approval from the [Institutional Review Board](#) (IRB) for theses involving human subjects or from the [Institutional Animal Care and Use Committee](#) (IACUC) for theses involving use of vertebrate animals. Approval from these institutional

committees, where appropriate, must be sought at the time of approval of the thesis topic, and research on the thesis may not commence until after IRB and/or IACUC approval is granted. Where appropriate, permission from other entities, such as the [Institutional Biosafety Committee](#), may be required.

Submission and Publication

It is the student's responsibility to prepare a final manuscript that meets the style requirements of both the UH Hilo Graduate Division and his or her graduate program. Details on these requirements may be found in the Graduate Student Handbook.

Publication is required for the thesis. UH Hilo uses ProQuest/UMI's [ETD Administrator](#), a web-based service for the submission and publication of student theses and dissertations. If online submission is unfeasible, please contact the [Mookini Library](#) or call (808) 932-7296 for assistance.

Annual Review Form

The primary academic advisor will submit an annual review form for each graduate student under her or his charge to the chair of the graduate program, using the form provided by their graduate program. This form will include data concerning number of credits earned; progress toward meeting other requirements such as papers, projects or theses; GPA; and other specific requirements for the graduate degree.

Awarding of the Degree

When a student has satisfied the requirements for a master's degree, the chair of the student's graduate program submits [Form 3: Thesis/Project/Dissertation Completion](#) to the Graduate Division by the required deadline. If submitting a thesis, this form should be submitted to the library for acknowledgement of submission of the thesis.

Deadlines

Degree completion dates will be posted on the [academic calendar](#). Those who have not completed all degree requirements by the established deadlines will be required to register the following semester.

Degree Conferral and Commencement

Degrees are conferred three times each year: December, May, and July. Students who complete degree requirements late in the summer or in the fall semester are awarded degrees in December. Students who complete degree requirements in the spring semester are awarded degrees in May. Students who complete degree requirements in early summer are awarded degrees in July.

To participate in the commencement ceremony, the student's graduate program must submit [Form 3: Thesis/Project/Dissertation Completion](#) to the Graduate Division by the required deadline. Commencement exercises are held only in December and May.

Completion Letter

Students who complete all requirements for the degree well in advance of the award of the degree may, upon request, receive a statement from the Office of the Registrar certifying that all requirements for the degree have been completed.



Checklist for Completion of Degree Requirements

Master's Degree (non-thesis option)

- **Graduate program:** Appoints primary academic advisor and, where appropriate, graduate committee, in consultation with the student. If a graduate committee is used, submits [Form 1: Graduate Committee Formation](#) to the Graduate Division.
- **Student:** Satisfies residence and course requirements.
- **Student:** Maintains continuous enrollment in program.
- **Student:** Completes any other program requirements.
- **Student:** Registers for semester in which degree requirements will be completed.
- **Student:** Submits [Application for Graduation](#) form to the Cashier's Office by the required deadline.
- **Student:** Passes final examination, and/or passes requirements for papers or projects as specified by the graduate program.
- **Student:** Completes all other requirements specified by the graduate program.
- **Student:** Obtains signatures of committee members, library, and Graduate Program Chair [Form 3: Thesis/Project/Dissertation Completion](#) and submits to the Graduate Division. The Graduate Division will obtain the final two signatures and submit the completed form to the Office of the Registrar by the required deadline.

Master's Degree (thesis option)

- **Graduate program:** Assigns primary advisor and committee. Submits [Form 1: Graduate Committee Formation](#) to the Graduate Division.
- **Student:** Submits [Form 2: Thesis/Dissertation Proposal](#) to the Graduate Division when ready to begin thesis.
- **Student:** Satisfies residence and course requirements.
- **Student:** Maintains continuous enrollment in program.
- **Student:** Completes coursework required for the degree.
- **Student:** Completes any other program requirements.
- **Student:** Passes general examination if required.
- **Student:** Registers for semester in which degree requirements will be completed.
- **Student:** Submits [Application for Graduation](#) form to the Cashier's Office by the required deadline.
- **Student:** Defends and completes thesis.
- **Student:** Submits dissertation on [ETD Administrator](#).
- **Student:** Obtains signatures of committee members, initials of the Collection Development Librarian (or designee), and Graduate Program Chair on [Form 3: Thesis/Project/Dissertation Completion](#) then submits form to the Graduate Division for signature. The Graduate Division will obtain the final 2 signatures and submit the completed form to the Office of the Registrar by the required deadline in the [University calendar](#).

Requirements for Candidates for Doctoral Degrees

Admission to Doctoral Work

For masters' degree candidates intending to continue into the doctoral program in the same graduate program, the student's graduate committee, at a designated time near the completion of the student's masters' work, decides whether or not to admit the student to the

doctoral program. This will be indicated on the form [Petition to Continue from a Master's Program to a Doctoral Program](#), submitted to the Graduate Division by the program. For entry into a UH Hilo doctoral program from a masters' program at another university, or from a masters' program in a different discipline at UH Hilo, students follow the regular graduate application and admission procedures.

Beginning the Program

At the beginning of the student's doctoral work, the chair of the graduate program appoints a primary academic advisor or graduate committee (whose chair is the principal advisor). The initial advisor assists the student in planning coursework and in understanding the program structure and requirements; the advisor has primary responsibility for monitoring the progress of the student's work. The advisor may or may not become the student's graduate committee chair at a later stage in his or her studies. The initial advisor should meet with the student at least once each semester.

Requirements for a doctoral degree

The Graduate Catalog stipulates the specific requirements for the doctoral degree in each program. The requirements include:

1. Maintenance of at least a B average in courses approved by the program's graduate committee and presented for the degree.
2. Fulfillment of all program course requirements (no credit is granted for graduate courses in which a grade lower than B- has been received).
3. Completion of at least 24 credit hours in residence regardless of any previous graduate coursework elsewhere. **Students continuing their studies for a doctoral degree in the same UH Hilo program from which they earned their masters' degree need not fulfill a second residence requirement.**
4. Continuous registration including the semester in which final degree requirements are completed.
5. Demonstration to the graduate committee by means of a comprehensive examination (written and/or oral) of familiarity with basic hypotheses and techniques of the discipline and competence in applying them.
6. Fulfillment of any research skills requirements.
7. Submission of a dissertation on a topic approved by the department or school, embodying the results of original research and giving evidence of high scholarship.
8. Successful defense of the dissertation at a final oral examination.
9. Completion of any other requirements specific to the graduate program.

Research Skills Requirements

Each graduate program establishes foreign language reading competency or equivalent research skills for its students. The graduate program determines the method(s) to be used to fulfill these requirements. Graduate students may register for research skills courses that have been established in each program.

Comprehensive Examination

A comprehensive or proficiency examination is used to test candidates' specialized knowledge in the discipline and to demonstrate that they are qualified to undertake advanced-level dissertation work. The comprehensive examination may be written and/or oral.

The student's graduate committee serves as the examination



committee, and this body determines the outcome of the examination. The student may repeat all or part of the comprehensive examination only once without prior approval from the Vice Chancellor for Academic Affairs (VCAA) or designee. The student has five years to complete the doctorate after passing the comprehensive examination.

Dissertation Planning

After the student passes the comprehensive examination, the student's graduate committee will oversee the dissertation work. The committee will include an additional member chosen from a field outside the graduate program or from a similar field but from a different university, approved by the VCAA or designee. Based on the student's recommendations, the committee is appointed by the chair of the student's graduate program. Two of the three regular members of the committee must be full time faculty at UH Hilo. Students must receive approval from the [Institutional Review Board](#) (IRB) for theses involving human subjects or from the [Institutional Animal Care and Use Committee](#) for dissertations involving use of vertebrate animals. IRB approval, where appropriate, must be sought at the time of approval of the dissertation topic, and research on the dissertation may not commence until after IRB approval is granted. Where appropriate, permission from other entities, such as the [Institutional Biosafety Committee](#), may be required.

Committees are formed and modified (if necessary) by mutual agreement between the student and the faculty. The principal dissertation supervisor serves as chair of the graduate committee. Faculty are not required to serve on a particular dissertation committee if they do not wish to, and they are entitled to withdraw from a dissertation committee for reasonable cause. Faculty members from outside the student's own department or school may serve on the dissertation committee, but they do not replace the outside examiner, who is appointed by the VCAA before the final oral examination is scheduled.

Visiting, affiliate, and research faculty of UH Hilo (not holding the rank of Professor, Associate Professor, or Assistant Professor) may be appointed to a dissertation committee by the VCAA or designee upon recommendation of the program for a period not to exceed their term appointment at UH Hilo. If such term appointment is renewed, the member may continue to serve on the student's graduate committee.

Prospectus

The prospectus functions to identify the topic to be undertaken in the dissertation and to formalize the approval of the project by a faculty committee. The timing, format, length, and conventions governing the prospectus are set by each graduate program. If the student's program requires a prospectus, the student should submit it within six months after being admitted to candidacy; the prospectus must first be approved by the dissertation committee. In a conventional prospectus, a student is asked to identify a topic, to summarize relevant backgrounds, and to explain the approach. Some programs substitute for the prospectus another means of ensuring that the student's project has been identified clearly and has received written approval by each member of the committee.

Before approving the dissertation project, the chair of the graduate committee is encouraged to arrange a conference with the student and the other committee members for the purpose of discussing the research topic. Each program must inform doctoral students of its expectations, standards, and procedures regarding the prospectus or other approval of dissertation projects and must provide access to samples of accepted proposals or prospectuses. Graduate programs should include specific information about their expectations for a prospectus in advising

manuals for graduate students.

Admission to Candidacy

After the student has passed the comprehensive examinations and met all research skills and coursework requirements, as certified by the program's submission of the [Recommendation for Admission to Candidacy for a Doctoral Degree](#) form, he or she will be officially admitted to candidacy for the doctoral degree by the VCAA. This is generally done in the semester in which the student plans to complete the dissertation. Intra- and inter-program majors and minors should be declared at this time where applicable.

By the end of the second semester of coursework in a doctoral program, [Form 1: Graduate Committee Formation](#) should be submitted.

At least two semesters normally elapse between admission to candidacy and the granting of the degree. Doctoral candidates must complete all requirements for the degree, including the dissertation, within five years after admission to doctoral candidacy.

Dissertation Defense

The graduate committee has direct charge of all matters pertaining to the dissertation. The student's dissertation must have the unanimous approval of his or her dissertation committee and of the chair of the graduate program before arrangements are made for the final examination for the degree. Members of the student's graduate committee serve as the examination committee. Students must receive approval from the [Institutional Board](#) (IRB) for dissertations involving human subjects or from the [Institutional Animal Care and Use Committee](#) (IACUC) for dissertations involving use of vertebrate animals. IRB and/or IACUC approval, where appropriate, must be sought at the time of approval of the dissertation topic, and research on the dissertation may not commence until after IRB approval is granted. Where appropriate, permission from other entities, such as the [Institutional Biosafety Committee](#), may be required.

Outside member

1. In consultation with his or her committee chair, the student will identify a UH faculty member from outside of the student's graduate program to serve as an outside voting member of the dissertation committee.
2. The outside member must possess sufficient familiarity with the student's research topic to be able to review and comment on the manuscript.
3. The committee chair must ascertain that the outside member is indeed independent of the faculty in the student's graduate program and that his or her membership on the committee will not constitute any conflict of interest.
4. The outside member fulfills the following functions:
 1. Represents the University faculty on the committee, ensuring administration of proper procedures and fair treatment of the student;
 2. Ensures that the level of research is indeed appropriate to the student's degree objective; and
 3. Provides disciplinary expertise and an academic perspective that may not be possessed by the faculty of the student's graduate program.
5. The approval process for the outside member is as follows



1. The student and committee chair will forward the name of the proposed outside committee member to the Graduate Council. The nominee's academic credentials, including a vita, should be included if the nominee is not a UH Hilo faculty member.
2. If the Graduate Council affirms the selection, the name will be sent forward to the VCAA for final approval.
3. If the Graduate Council does not affirm the selection, the VCAA will determine how to resolve the disagreement; final selection will rest with the VCAA if the disagreement cannot be resolved between the candidate/committee chair and the Graduate Council.

External Examiner

The VCAA or designee, upon recommendation from the graduate program, adds an external examiner to the examination committee as the representative of the Graduate Division and the university. The external examiner is either a UH Hilo faculty member from a related area outside the student's graduate program or someone from a related discipline outside the University. Normally, the external examiner will have no involvement in the supervision of the student's dissertation. The external examiner's function on the examination committee is to render an independent judgment and to assure that the dissertation satisfies Graduate Division standards. Because the external examiner is supposed to serve the Graduate Division, s/he therefore must have substantial experience evaluating the scholarship/research of doctoral students (e.g., by being part of a graduate program, on graduate committees, supervising graduate research).

In special circumstances, particularly when a student would benefit from early counsel from a faculty member outside UH Hilo, the department chair or director of graduate studies can petition the VCAA or designee to appoint an external examiner while the dissertation is still being written. If the nominee is from another institution, the program chair should forward the nominee's academic credentials, including a vita, to the VCAA or designee to be evaluated. The VCAA or designee then invites the nominee or another faculty member to serve as external examiner.

Final Oral Exam (Dissertation Defense)

After the student's program has been notified of the appointment of an outside examiner, the program director, in conjunction with the chair of the examination committee, may proceed to schedule the final oral examination.

Because of the time required to give adequate consideration to the student's research, the student should submit the dissertation to the graduate committee well in advance of the final oral defense. Normally, two months is recommended; the student should consult the committee.

The final oral examination is open to any person wishing to attend. Members of the graduate committee must be given sufficient time to question the candidate about the dissertation. The final defense is a public examination, however, and the committee chair is responsible for the conduct of an open and impartial examination, including reasonable participation by observers. At the conclusion of the examination, it is customary for the chair to request that everyone except the graduate committee leave the room, so that the members may reach a decision. This procedure should not be invoked at any other time during the examination and should not preclude questions from either committee members or outside observers. The final oral examination shall not exceed 4 hours in length.

No member of a graduate committee can be expected to participate in a

dissertation defense if that member has not had at least two weeks to read and consider the dissertation beforehand.

At the final examination, the student will be required to respond to examiners' questions concerning the dissertation and to defend the validity of the dissertation. To pass, the student must receive unanimous approval from the total graduate committee present.

If at the final examination the examiners generally approve of the dissertation but require significant changes the chair of the graduate committee will coordinate with other members of the committee to compile all required changes and will inform the student of the scope and substance of those changes. The committee will establish how the changes will be reviewed and approved.

Following the oral exam and approval of the dissertation, the chair of the graduate program submits to the Graduate Division the signed [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion](#), indicating that the student has now fulfilled all dissertation requirements for the doctoral degree and has successfully defended the dissertation. Members of the dissertation committee sign the signature page in the original copy of the dissertation after required revisions are included; if the outside examiner does not signify approval in this manner, he or she should give the reason for dissent by submitting a separate memorandum to the VCAA or designee within three days of the examination.

Remote Participation

Normally, all members of the graduate committee and the outside examiner are present at the defense. At the discretion of the program, with the unanimous consent of all members of the graduate committee and the student, committee members or the outside examiner may participate in the defense via real-time teleconferencing or real-time videoconferencing. In all cases, the chair and at least one other member of the dissertation committee must be physically present.

If in exceptional circumstances one member of the graduate committee cannot be present (either physically or *virtually*), they may submit questions and comments in writing. Such arrangements must be approved in advance by the program and must have the unanimous consent of all other members of the graduate committee and the student.

Dissertation Submission and Publication

It is the student's responsibility to prepare a final manuscript that meets the style requirements of both the UH Hilo Graduate Division and his or her graduate program. Details on these requirements may be found in the [Graduate Student Handbook](#).

Publication is required for the dissertation. The University of Hawaii at Hilo uses ProQuest/UMI's [ETD Administrator](#), a web-based service for the submission and publication of student theses and dissertations. In the case where online submission is unfeasible, please contact the [Edwin H. Mookini Library](#) or call (808) 932-7286 for assistance.

Deadlines

Degree completion deadlines are noted in the [University calendar](#).

Degree Conferral and Commencement

As noted under Master's degree requirements.



Completion Letter

Students who complete all degree requirements well in advance of the awarding of the degree may, upon request, receive a statement from the Office of the Registrar certifying that all requirements for the degree have been completed.

Checklist for Completion of Degree Requirements of Doctoral Degree

- **Graduate program:** Assigns principal academic advisor and graduate committee. Submits [Form 1: Graduate Committee Formation](#).
- **Student:** Submits [Form 2: Thesis/Dissertation Proposal](#) to the Graduate Division when ready to begin thesis.
- **Student:** Satisfies residence and course requirements.
- **Student:** Passes research skills examinations (if required).
- **Graduate program:** Arranges comprehensive examination.
- **Student:** Takes comprehensive examination.
- **Student:** Writes a prospectus.
- **Graduate program:** Submits [Recommendation for Admission to Candidacy for a Doctoral Degree](#) form to the Graduate Division by the required deadline.
- **Student:** Maintains appropriate registration for dissertation credit each semester, including the semester in which all degree requirements will be completed.
- **Student:** Completes dissertation.
- **Graduate program:** Nominates outside member by memo via the Graduate Council to the VCAA or designee.
- **VCAA or designee:** Appoints outside committee member and so notifies the graduate program.
- **Graduate program:** Nominates external examiner by memo to the VCAA or designee.
- **VCAA or designee:** Appoints external examiner and so notifies the graduate program.
- **Student:** Passes final oral examination.
- **Student:** Submits dissertation on [ETD Administrator](#).
- **Student:** Obtains signatures of committee members, initials of the Collection Development Librarian (or designee), and Graduate Program Chair on [Form 3: Thesis/Project/Dissertation and Degree Requirements Completion](#), then submits form to the Graduate Division for signature. The Graduate Division will obtain the final 2 signatures and submit to the Office of the Registrar by the deadline in the [University calendar](#).
- **Student:** Completes the Survey of Earned Doctorates (optional). Details may be found in the [Graduate Student Handbook](#).

Graduate Student Rights and Responsibilities

Policy on Academic Dishonesty

Graduate students are subject to the policies and procedures governing student conduct as described in the UH Hilo Student Conduct Code. This includes acts of academic dishonesty, including, but not limited to, plagiarism, cheating, and falsifying data. Students can find these policies in the [Academic Dishonesty](#) section of this Catalog.

Policy on Conduct Violations Other than Academic Dishonesty

Instances in which graduate students are alleged to have violated the UH

Hilo Student Conduct Code in areas other than academic dishonesty will be handled following the procedures described in the Student Conduct Code. These procedures are described in the [Student Conduct Code](#) section of this catalog.

Conduct and Removal of Financial Support

All other recommendations to dismiss a student from the Graduate Division or one of its programs, or to break a student's assistantship contract or to revoke a fellowship, tuition scholarship, or other source of financial support, are made to the VCAA, accompanied by appropriate documentation. The student will be informed of the basis for any such decision. The student may appeal the decision by using first the grievance procedure of the student's program and then, if needed, the appeals procedures of the Graduate Council Grievance Committee. Action on a recommendation to remove support from or to dismiss a student in good academic standing will await the outcome of the grievance procedure.

Academic Complaints

The process for handling academic complaints by graduate students will follow the same general procedure as utilized for undergraduate students at UH Hilo. This procedure is outlined in the [University of Hawai'i at Hilo Student Academic Complaint Policy](#). The following exception is made for graduate students:

Under Part III (Procedures for the Resolution of Academic Complaints Filed During the Regular Academic Year) Letter B (Complaint of Academic Impropriety), for complaints relating to academic impropriety involving graduate students, the Dean shall refer the written complaint to the UH Hilo Graduate Council (Academic Complaints Committee) for timely review and recommendation (10 calendar days) before taking action.

M.A. in Heritage Management

Program Chair: Peter R. Mills, Ph.D.

Dept. of Anthropology
Social Sciences Division Office
200 W. Kawili Street
Hilo, HI 96720

Email: millsp@hawaii.edu

Professors:

- Peter R. Mills, Ph.D., Professor of Anthropology
- Lynn A. Morrison, Ph.D., Associate Professor of Anthropology

Associate Professors:

- Kathleen L. Kawelu, Ph.D., Associate Professor of Anthropology

Assistant Professors:

- Jack Rossen, Ph.D., Assistant Professor of Anthropology
- Joseph H. Genz, Ph.D., Assistant Professor of Anthropology

Lecturers:

- Eileen Momilani Naughton, Ph.D., NHERC
- Timothy Scheffler, Ph.D., lecturer, Dept of Anthropology
- Hans Van Tilburg, Ph.D., NOAA (adjunct)
- Lynne M. Wolforth, Ph.D., lecturer, Dept. of Anthropology



Program Description

The M.A. in Heritage Management is for students who seek careers in a multitude of governmental agencies, private-sector consulting firms, and in education, who work with the interpretation and preservation of cultural heritage. UH Hilo's MA in Heritage Management responds to House Resolution No. 130 of the 24th Legislature (2008).

There are five main objectives:

1. to apply anthropological concepts to guide a workforce of historic preservationists who are committed to the long-term management of Hawaiian cultural resources;
2. increase the number of individuals of local ancestry in leadership positions in heritage management;
3. provide better assistance to community planners in developing plans that are more sensitive to traditional cultural properties, human burials, sacred sites, ancient habitation sites, agricultural systems, and trails;
4. provide training to meet the professional qualifications of principal investigators as defined in Hawai'i Administrative Rules (HAR)13-281 for conducting archaeological fieldwork and for conducting cultural impact assessments; and
5. provide training to meet the federal professional standards for archaeologists as defined in 36 CFR Part 61.

Although the program is focused primarily within Hawai'i, we address heritage training across the Pacific Islands. The proposal fills a clear need to produce individuals who are well-trained in the specific issues of Oceanic heritage. Despite dozens of similar MA programs around the globe, none of the major extant programs focus on the Pacific Islands. The region has unique cultural historical, social, and environmental characteristics that would make localized training more effective in creating qualified, culturally sensitive professionals.

Program Curriculum

Required Courses (12):

- ANTH 600 Thesis Design, Method, Theory (3)
- ANTH 601 Ethics of Heritage Management (3)
- ANTH 602 Historic Preservation Laws (3)
- ANTH 603 Qualitative & Quant. Methods (3)

Topical Courses (3): [choose 1]

- ANTH 611 Cultural Impact Assessments (3)
- ANTH 612 Indigenous Museum Studies (3)
- ANTH 613 Human Paleoecology (3)
- ANTH 614 Submerged Cultural Resources (3)

Area Courses (3): [choose 1]

- ANTH 623 Archaeology of Oceania (3)
- ANTH 624 Archaeology of Hawaii (3)
- ANTH 625 Pacific Heritage Management (3)

Applied Analytical Methods (minimum 6): [choose 2]

- ANTH 631 Oral History Research (3)
- ANTH 632 Paleobotanical Methods (3)
- ANTH 633 Material Conservation (3)
- ANTH 634 Lithic Analysis (3)
- ANTH 635 Human Osteology (3)
- ANTH 682 Archaeological Field Methods (3-5)

Year 2 Internship in Heritage Management: (minimum 6 credits to be determined by student's area of specialization, may be repeated)

- ANTH 690 Heritage Management Internship (3) (a) Internship in Archaeology; (b) Internship in Museum Studies; (c) Internship in Burials Program (d) Internship in Cultural Impact Assessments.

Year 2 Thesis: (minimum 6 credits)

- ANTH 700 Thesis Research (1-6)

Total Minimum Semester Hours Required for the M.A. in Heritage Management: 36 credits.

M.A. in Counseling Psychology

Specialization: Clinical Mental Health Counseling

Program Director: Bryan Kim, Ph.D.

Email: bryankim@hawaii.edu

Website: counseling.uhh.hawaii.edu

Faculty:

- Steven Herman, Ph.D.
- Charmaine Higa-McMillan, Ph.D.
- Bryan Kim, Ph.D.
- Sunyoung Kim, Ph.D.
- Errol Yudko, Ph.D.

Program Description

Counseling Psychology as a psychological specialty aims at facilitating personal and interpersonal functioning across the life span with a focus on emotional, social, vocational, educational, health-related, developmental, and organizational concerns. Through the integration of theory, research, and practice, and with sensitivity to multicultural issues, this specialty encompasses a broad range of practices that help people improve their well-being, alleviate distress and maladjustment, resolve crises, and increase their ability to live more highly functioning lives. Counseling psychology is unique in its attention both to normal developmental issues and to problems associated with physical, emotional, and mental disorders. ([Counseling Psychology Division of the American Psychological Association](#))

Accreditation

The Master of Arts program in counseling psychology is accredited through 2021 by the Masters in Psychology and Counseling Accreditation Council (MPCAC), 595 New Loudon Road #265 Latham, New York 12110; mpcacaccreditation.org.

Mission

The mission of the Master of Arts program in counseling psychology is to provide multicultural, student-centered, graduate training in counseling psychology. The program is designed to train students to become knowledgeable, skillful, ethical counselors who will be able to help people in need of professional counseling services. For students who may wish to pursue a doctoral degree in psychology later, the program provides training in advanced statistics and research methodology. It also offers opportunities for students to gain research experience by participating in ongoing projects and/or by initiating their own research projects or a



Master's Thesis. The program assigns a high priority to meeting the educational and personal needs of its students and is based on a scientist-practitioner model, with an emphasis on empirical research and evidence-based practices.

Program Goals

- To provide students with the knowledge and skills to counsel clients from different ethnic, socio-economic, and educational backgrounds;
- To provide students with a broad understanding of general counseling theory and practice, within a scientist-practitioner framework;
- To provide students with the knowledge of the social, psychological, health, and economic problems that people of Hawai'i face, along with the professional skills to help people cope with and manage these problems in the future;
- To offer research training opportunities to students who are interested in pursuing a doctoral degree in counseling psychology or a related field.

Student Learning Outcomes

Graduates from the program will be able to:

1. Provide mental health counseling to clients/patients from different ethnic, socio-economic, and educational backgrounds;
2. Understand general counseling theory and practice, within a scientist-practitioner framework;
3. Understand the social, psychological, health, and economic problems that residents of Hawaii face, along with the professional skills to help people cope with and manage these problems in the future;
4. Obtain licensure in mental health counseling in the state of Hawaii and many other states in the US.

Prospects for Graduates

Graduates of the program will be able to seek employment as professional counselors. Employment prospects for mental health counselors are currently good in Hawai'i and in many other areas of the United States. Employment opportunities in this field are expected to grow at a faster than average rate over the coming years. Professional counselors may find employment in a wide variety of settings, including the following:

- Community mental health clinics
- Public and private elementary and secondary schools
- Colleges and universities
- Correctional facilities
- Vocational rehabilitation centers
- Job training and career counseling centers
- Residential care facilities
- Drug and alcohol rehabilitation programs and agencies
- Private practice settings
- Mental hospitals and psychiatric wards
- General medical hospitals and other healthcare facilities
- Employee Assistance Programs
- Child welfare and other family assistance agencies
- Military settings

Licensure

The program curriculum meets the educational requirements for licensure as a Mental Health Counselor in the state of Hawai'i. Additional

information can be obtained from the [Hawai'i Department of Commerce and Consumer Affairs](#). Please note that, in addition to completing the M.A. program, the current law has other requirements, including earning a passing score on the National Counselor Examination for Licensure and Certification and accruing at least 3000 hours of post-graduate experience in the practice of mental health counseling.

Admission Requirements

To be eligible for admission to the Master of Arts in Counseling Psychology program, students must meet the following minimum requirements:

- A baccalaureate degree from a regionally-accredited institution;
- A cumulative GPA of 3.0 on a 4.0 scale;
- A strong background in psychology or a closely-related field, with a minimum of 15 semester hours of course work in psychology; strongly recommended are an introductory or survey of psychology, statistical techniques, research methods, and at least two 300-level or higher psychology courses. For these 15 semester hours, similar courses in closely-related fields of study may also be acceptable;
- At least one 3-semester-credit course in statistics and one 3-semester-credit course in research methods from any discipline;
- Completion of the Graduate Record Examination (General Test);
- A score of 550 on the TOEFL (required of applicants for whom English is not their native language and whose undergraduate degree was earned in a non-English speaking country).

Meeting the minimum requirements does not guarantee admission. Eligible applications are reviewed by the Psychology Graduate Admissions Committee, which uses multiple criteria for the assessment of applicants. Admission is selective. Priority may be given to students applying for full-time enrollment. Depending on program needs, a few outstanding applicants for part-time enrollment may be admitted.

The application priority deadline for Fall admission is January 1. Please see [Graduate Application Procedures](#) for detailed information.

Transfer of Credits

Requests for transfer of credits must be made during the first semester in which the student is enrolled in the program. Students need to obtain departmental approval for all credit transfers. Only credit hours with a grade of B or better from accredited universities are transferable. Credit hours for practicum and internship courses are not transferable. Transfer credit hours must have been completed within five years prior to admission. Students may transfer a maximum of 12 semester hours (or the equivalent). On rare circumstances, requests for an exception to the 12-credit limit could be considered by the program faculty. All requests for transfer of credits must be accompanied by a transcript and course syllabi.

Program Curriculum (60 credits)

1. **Required courses (51):**
 - PSY 601 Applied Multivariate Statistic (4)
 - PSY 602 Research Meth & Prgm Evaluatn (3)
 - PSY 603 Psychological Assessment (4)
 - PSY 604 Profssnl Identity, Ethics (3)
 - PSY 611 Lifespan Human Development (3)
 - PSY 612 Career Development (3)
 - PSY 613 Psychopathology over Lifespan (3)
 - PSY 620 Counseling Theories (3)
 - PSY 622 Group Work & Counseling (4)



- PSY 623 Social & Cultural Foundations (3)
- PSY 624 Counseling Skills (3)
- PSY 640 Practicum (6)
- PSY 659 Internship (9)

2. Electives (9):

- PSY 614 Family System (3)
- PSY 641 Schl Behavr, Adjustmt, Prblms (3)
- PSY 642 Educatnl & Vocatnl Assessment (3)
- PSY 643 Schl & Career Guidance & Consu (3)
- PSY 651 Theories Of Family Counseling (3)
- PSY 656 Child Maltreatment (3)
- PSY 693 Cog Behavior Therapy Adult (3)
- PSY 694 Special Topics in Subject Matter (To Be Arranged)
- PSY 695 CBT for Children and Families (3)
- PSY 699 Directed Studies (To Be Arranged)
- PSY 700 Thesis Research (1-6)

observed or supervised the applicant's performance and are able to comment on the quality of the applicant's teaching experience, ability to pursue graduate study, and general character.

The UH Hilo School of Education M.Ed. Admissions Committee will evaluate above evidence submitted as one of the components in the M.Ed. application.

Application packets will be reviewed only when they are complete. International applicants also must provide verification of financial status. An official TOEFL score report may be required for international applicants.

The UH Hilo M.Ed. Program does not lead to licensure in the State of Hawai'i.

Master of Education (M.Ed.)

Program Chair: Diane Barrett, Ph.D.

Office: University Classroom Building (UCB), Room 319

Website: hilo.hawaii.edu/depts/education/

Program Description

The Master of Education degree (M.Ed.) program prepares teacher leaders to serve their schools and communities in Hawaii and throughout the Pacific Rim. The program is aligned to Teacher Leader Model Standards. It is a 30-semester-hour, cohort-based program that may be completed in four semesters and two summers. Courses are offered primarily through a distance-learning format. As teacher leaders, graduates will be prepared to bring a culturally-responsive, research-based approach to school improvement efforts.

Student Learning Outcomes

Graduates of the program will be able to:

1. Design and conduct action research by exploring instructional and professional topics relevant to school and student performance;
2. Critically examine and analyze current trends and issues in education and apply this knowledge by demonstrating teacher leader competencies within the profession.

Admission Requirements

Admission is based upon previous preparation and requires completion of a baccalaureate degree and evidence of eligibility for the initial basic license to teach as defined by the UH Hilo [School of Education](#) and guided by the Hawaii Teacher Standards Board. Applications and a detailed description of requirements are available from the School of Education or from the UH Hilo Graduate Office of Admissions. Interested potential students may contact the School of Education Advisor at (808) 932-7102 for more information.

Following are the major requirements for admission:

1. Baccalaureate degree from an accredited institution;
2. A cumulative grade point average (GPA) of 3.0 (4.0 = A scale) or the equivalent in the last four semesters or approximately 60 semester credits of the undergraduate record and in all post-baccalaureate work;
3. Evidence of eligibility for an Initial Hawai'i Basic License to teach;¹
4. Three letters of recommendation from references who have

Course and Graduation Requirements

M. Ed. Course Requirements

- ED 600 Ed Of Ethnic Groups in Hawaii (3)
- ED 602 Technology in Education (3)
- ED 608A Action Research I (3)
- ED 608B Action Research II (3)
- ED 608C Action Research III (3)
- ED 610 Foundations Of Education (3)
- ED 616 Assess & Evaluation in Ed (3)
- ED 622 School Curriculum (3)
- ED 625 Seminar in Teaching Fld (3)
- ED 635 Adv Instructional Strategies (3)

M. Ed. Graduation Requirements

- Students must complete all program courses.
- To remain eligible for continuance in the M.Ed. and to be awarded the graduate degree, students must maintain progress toward completion of the program and may earn no grade lower than a B- in any individual class, and maintain a B average (3.0 GPA) for all courses completed in the program.
- Each student must complete a culminating experience; this is an independent project that integrates what he or she has learned during the program.

Cohort and Other Requirements

- Students enroll in the M.Ed. program as members of a cohort which is expected to complete all requirements in four semesters and two summers.
- Courses are offered during the evening and/or on Saturdays, and during the summer.
- Typically, all students in a cohort will take courses together and in sequence.
- New cohorts will be established based on student demand and available resources.
- Students must remain continuously enrolled while in the M.Ed. program.

Faculty Advising and Guidance

Each student will be assigned a faculty advisor who will meet with the individual student to provide guidance for the culminating project.



1. Applicants who do not hold a license to teach should meet with the School of Education Advisor ((808) 932-7102 for appointment) prior to submitting documentation for admission to the M.Ed. Program. Applicants must submit evidence of their eligibility by documenting the following: **a)** development of knowledge, skills, and dispositions described in the Hawai'i Teacher Standards Board's Teacher Performance Standards, **b)** teaching experience, and **c)** ability to participate in the study of education at the level required in a graduate program.

Master of Arts in Teaching (MAT)

Program Chair: Diane Barrett, Ph.D.

Office: University Classroom Building (UCB), Room 319

Website: hilo.hawaii.edu/depts/education/

Program Description

The primary purpose of the MAT is to prepare teachers who demonstrate the knowledge, skills, and dispositions needed to build strong curriculum, pedagogy, assessments, and the relationships that bring about significant changes to improve schools, support learners and their development, and positively impact student achievement. After the first year of the MAT, students apply for initial teacher licensure with the Hawai'i Teacher Standards Board. During the second year of the MAT, students will be able to engage in action research, a critical and reflective analysis that enables teachers to integrate and apply a variety of research-based methods in their classrooms.

MAT Claims

Those who complete the program will be able to:

- Create supportive environments based on their knowledge of learner development and learning differences.
- Demonstrate subject matter knowledge and apply this knowledge to engage students in learning content.
- Plan instruction that supports student learning through the use of multiple instructional and assessment strategies including technology.
- Demonstrate professional attributes, engage in critical reflection and collaborate to ensure learner growth.

Admission Requirements

- Applicants must:
 - have earned a baccalaureate degree from an accredited institution or from a nationally recognized foreign institution.
 - have a GPA of 3.0 on a 4.0 scale in the last 60 semester credits.
 - receive passing scores on the PRAXIS II: Content Area Examinations.
 - have a minimum of 40 hours (more preferred) of previous experience working with school-aged (P-20) youth.
 - submit three letters of recommendation from those who observed applicant working with school-aged youth.
 - submit two professional statements detailing interest in the teaching profession and beliefs about student learning.
- Additionally:
 - [School of Education](#) Interview may be required.
 - For all applicants seeking elementary licensure, these pre-

requisite courses must be completed, each with a grade of C or better, and in combination passed with a GPA of 2.75 or above: ED 341 Literacy Dev in Elem School (4), ED 343 Math for Elem School Teachers (3), and ED 347 Intgr Sci/Soc Stud Elem School (3).

- For applications seeking licensure at the secondary level, the baccalaureate degree must be related to the content area of licensure.
- For applications seeking licensure in Social Studies, there may be additional prerequisite coursework. Each of the Social Studies prerequisite courses must be completed, each with a grade of C or better, and in combination passed with a GPA of 2.75 or above.
- Applicants for whom English is not the native language must obtain a score of 550 (paper based test), 213 (computer based) or 79 (internet based) on the TOEFL, or a 6.0 on the IELTS. Students with bachelor's degrees from English-speaking institutions do not need to submit TOEFL scores.

Some courses are specific to the elementary track and others to the secondary track. Some courses are common to both tracks.

Elementary (36 credits)

First year, for licensure:

- ED 640 Learner Development (2)
- ED 641 Learning Differences I (1)
- ED 642 Learning Differences II (2)
- ED 643 Learning Environments I (1)
- ED 644 Learning Environments II (1)
- ED 645 Learning Environments III (2)
- ED 650 Teaching in Hawaii's Schools (1)
- ED 651 Elem Instructional Practice (2)
- ED 652 Elem LA/SS Pedagogy (2)
- ED 653 Elem MT/SC Pedagogy (2)
- ED 654 Tech Instruction & Assessment (2)
- ED 659 Professional Practice (3)
- ED 660 Professional Responsibility I (1)
- ED 661 Professional Responsibility II (1)
- ED 662 Prof Responsibility III (1)
- ED 670 Field Experience I (1)
- ED 671 MAT Field Experience II (2)
- ED 672 Clinical Practicum (3)

Second year, to complete the MAT:

- ED 680 Teacher as Researcher I (3)
- ED 681 Teacher as Researcher II (3)

Secondary (36 credits)

First year, for licensure:

- ED 640 Learner Development (2)
- ED 641 Learning Differences I (1)
- ED 642 Learning Differences II (2)
- ED 643 Learning Environments I (1)
- ED 644 Learning Environments II (1)
- ED 645 Learning Environments III (2)
- ED 650 Teaching in Hawaii's Schools (1)
- ED 654 Tech Instruction & Assessment (2)



- ED 655 Sec Instructional Practice (2)
- ED 656 Sec LA/SS Pedagogy (2) OR ED 657 Sec MT/SC Pedagogy (2)
- ED 658 Sec Content Literacy (2)
- ED 659 Professional Practice (3)
- ED 660 Professional Responsibility I (1)
- ED 661 Professional Responsibility II (1)
- ED 662 Prof Responsibility III (1)
- ED 670 Field Experience I (1)
- ED 671 MAT Field Experience II (2)
- ED 672 Clinical Practicum (3)

Second year, to complete the MAT:

- ED 680 Teacher as Researcher I (3)
- ED 681 Teacher as Researcher II (3)

The first three semesters (Summer-Fall-Spring) in the MAT program prepare the student to become licensed to teach. Continuation in the program for 2 more semesters (6 more credits) leads to the Master of Arts in Teaching degree.

Academic Status, Progression, and Readmission Policies

Participants are required to begin the program during the Summer semester and are required to be enrolled full-time during Fall and Spring semesters. There are no elective courses.

Grades below "B-" or "credit" will not be accepted in courses defined to fulfill program requirements. Work for courses designated "credit/no credit," must be at least at the "B-" (2.7) level to qualify for "credit." Required MAT courses, unless designated "credit/no credit," may not be taken on a "credit/no credit" basis. A cumulative 3.0 GPA must be maintained in all MAT program course work. A candidate whose GPA in MAT courses falls below 3.0 may be dismissed from the program. In order to enroll in MAT courses, students must be admitted as teacher candidates into the program. Candidates must progress through MAT coursework and field experiences in three consecutive semesters. Fall and Spring semester enrollment is based on recommendation of the Education faculty. A candidate may be removed from a field experience when in the judgment of the Education faculty, cooperating teacher, and/or school principal the candidate 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.

Students and candidates who stop out of the University must reapply and meet all criteria in effect for the respective Admission deadline. See guidelines and policies set forth in the UH Hilo Graduate Student Handbook.

**Ka Haka 'Ula O Ke'elikōlani College of
Hawaiian Language Graduate Programs**

Graduate Programs Coordinator: Scott Saft, Ph.D.

Email: saft@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/mhhmulipuka.php

Professors:

- Glenn Kalena Silva, Ph.D.
- William Pila Wilson, Ph.D.

Associate Professors:

- Makalapua Alencastre, Ed.D.

- Jason Iota Cabral, Ph.D.
- Kekoa Harman, M.A.
- Betty-Joann Noelani Iokepa-Guerrero, Ph.D.
- Kauanoē Kamanā, Ph.D.
- Keiki Kawai'ae'a, Ph.D.
- Larry Kimura, Ph.D.
- Yumiko Ohara, Ph.D.
- Hiapoikeikane Perreira, Ph.D.
- Scott Saft, Ph.D.

Assistant Professor:

- Kananinohea Māka'imoku, M.A.

Vision and Mission of the College

'O ka 'ōlelo ke ka'ā o ka maui.

Language is the fiber that binds us to our cultural identity.

Consistent with the official status of the Hawaiian language in the state constitution, the Hawai'i state legislature in 1997 mandated the establishment of a college at the University of Hawai'i at Hilo, with classes and staff meetings to be conducted through the Hawaiian language. Established by the University of Hawai'i Board of Regents in 1998, UH Hilo's College of Hawaiian Language, Ka Haka 'Ula o Ke'elikōlani, was named in honor of Ruth Ke'elikōlani Keanolani Kanāhoahoa, the nineteenth century high chiefess known for her strong advocacy of Hawaiian language and culture.

The mission of the college is first to seek the revitalization of the Hawaiian language and culture, endangered by the dominance of Western culture in the twentieth century, so that both language and culture once again become commonplace in both educational and non-educational contexts in Hawai'i. Secondly, the college seeks to aid other indigenous peoples to revitalize their own endangered languages and cultures. Linguistics, the scientific study of human language, is central to the Ph.D. program of the college and informs its work in all other areas as well.

The college is still small and its programs are not fully established. The M.A. program in Hawaiian Language and Literature was initiated in 1998, shortly after the college was established. The [Kahuawaiola Hawaiian and Indigenous Teacher Education Program](#) to train Hawaiian speaking teachers for Hawaiian medium schools was initiated in 1999. Two additional graduate programs were later initiated, the Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization in 2006, and the M.A. in Indigenous Language and Culture Education in 2007. For now, the college's ability to train students whose indigenous language is other than Hawaiian is limited to the Ph.D. program. The M.A. program in Indigenous Language and Culture Education currently offers only a Plan B practicing track, which requires students to be fluent in Hawaiian language. In the future, when the faculty is larger, the college intends to open a monitoring indigenous education track that will be open to students focusing on other indigenous languages. The college will also open the certificate program in indigenous language and culture revitalization, which aims to give course work to students who have already obtained a bachelor's degree in order to help prepare them for work as educators, or for entering one of the college's graduate programs.

- [Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization](#)



- M.A. in Hawaiian Language and Literature
- M.A. in Indigenous Language and Culture Education
- Kahuawaiola Indigenous Teacher Education Graduate Program Certificate
- Hawaiian Language (HAW) Graduate Courses
- Hawaiian Studies (HWST) Graduate Courses
- Ke'elikōlani Education (KED) Graduate Courses
- Ke'elikōlani Indigenous Language (KLAN) Graduate Courses
- Ke'elikōlani Indigenous Studies (KIND) Graduate Courses
- Ke'elikōlani Linguistics (KLIN) Graduate Courses

Kahuawaiola Indigenous Teacher Education Graduate Program Certificate

Coordinator: Makalapua Alencastre, Ed.D

Email: kaawa@hawaii.edu

Faculty:

- Makalapua Alencastre, Ed.D.
- Betty-Joann Noelani Iokepa-Guerrero, Ed.D.
- Keiki Kawai'ae'a, Ph.D.
- Kananinohea Māka'imoku, M.A.

Note: This program is assisted by experts in Hawaiian language and culture from outside the college and by additional faculty drawn from Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

For Information Contact:

Ku'u lei Kepa'a

Ka Haka 'Ula O Ke'elikōlani

University of Hawai'i at Hilo

200 W. Kāwili Street

Hilo, Hawai'i 96720-4091

Tel: (808) 932-7730

Email: kuulei.kepaa@hawaii.edu

Website: kahuawaiola.org

Program Description

The Kahuawaiola Hawaiian and Indigenous Teacher Education Program is a three-semester graduate certificate program, delivered primarily through the medium of Hawaiian, specifically designed to prepare *Mauli Ola Hawai'i* (Hawaiian identity nurturing) teachers of the highest quality to teach in Hawaiian language medium schools, Hawaiian language and culture programs in English medium schools, and schools serving students with a strong Hawaiian cultural background. Kahuawaiola is accredited through the State Approval of Teacher Education Programs (SATE) and the World Indigenous Nations Higher Education Consortium (WINHEC). Upon successful completion of the program, candidates will have satisfied one of the requirements for initial licensure from the Hawai'i Teachers Standards Board. (See Graduation Requirements section for additional requirements for recommendation to the HTSB.)

Based on the Hawaiian concepts *Ma ka hana ka 'ike* (Knowledge comes from direct experience), and *Ma mua ka hana, ma hope ka wala'au* (direct experience comes first, discussion comes second), Kahuawaiola places a high value on on-site learning and practicum experience with high performance outcomes. Academics are integrated in a spiraling sequence and holistic indigenous approach both within and outside the classroom for a balance of theory and applied learning situations. The four program areas of teacher preparation include, 1) Hawaiian

language, culture, and values; 2) pedagogical skills; 3) knowledge of content; and 4) development of professional qualities.

Kahuawaiola is delivered through a Hawaiian cultural framework of four *pale*, or phases. The first *pale*, *Wana'ao*, requires that students accepted into the program have previous experience in teaching and/or curriculum development through the medium of Hawaiian. (See Entrance Requirements section for complete description of work experience requirement.)

The second *pale*, *Kahikole*, takes place during the summer. During this foundation phase of teacher training, principles of learning and teaching are integrated with state standards and general educational theory through a philosophy of education, *Ke Kumu Honua Mauli Ola*, based on Hawaiian traditions. Students learn to integrate Hawaiian culture and pedagogy into all phases of the curriculum and content areas, including differential learning strategies, lesson planning, assessment, classroom management, and other skills necessary for practical application in the third *pale*. Students carry a total course load of 13 credits during the summer session.

Students then invest two full semesters to gain student teaching experience at Hawaiian medium school locations around the state. They are encouraged to return to their home communities for the practicum phases and are supported by a cooperating teacher, regular site visits from clinical faculty, and professional development workshops where the students are given the opportunity to interact with practicing Hawaiian immersion professionals from throughout the state. Students are expected to commit full-time to the practicum experience, which also includes a discussion seminar via HITS (Hawai'i Interactive Television System). The third *pale*, *Kahikū*, takes place during the fall semester and focuses on developing teaching skills but includes discussion of broader issues as appropriate. Students carry a total course load of 12 credits during the fall semester which includes both the practicum and seminar.

The fourth *pale*, *Kaulolo*, takes place during the spring semester and focuses on mastery of teaching skills and professionalism through extended teaching experiences and seminar support. The seminar focuses on hypothetical situations and long-range goals rather than practical day-to-day situations, although these are also covered when appropriate. In this *pale*, students acquire the higher-level planning and conceptualization skills necessary for the growth of Hawaiian medium education. During the spring semester, students carry a total course load of 12 credits including both the practicum and seminar.

Evaluation of Hawaiian language proficiency is conducted through tests that evaluate the level of fluency in six areas:

1. reading comprehension;
2. aural comprehension;
3. use of standard orthography in adapting older materials;
4. translation from English;
5. composition; and
6. oral language skills demonstrated in an interview.

Mission

The mission of Kahuawaiola is to prepare "Mauli Ola Hawai'i" teachers of the highest quality, who are grounded in Hawaiian language and culture, to serve in Hawaiian language medium schools, in Hawaiian language and culture programs in English medium schools, and in schools serving students with a strong Hawaiian cultural background.



Student Learning Outcomes

1. 'Ike 'Ōlelo: Demonstrate Hawaiian language proficiency within multiple contexts of the learning environment.
2. 'Ike Maui Ola Lāhui: Fosters a Hawaiian cultural identity through effective culture-based methods.
3. 'Ike Ho'okō: Utilizes consistent self-evaluation and improvement practices and creates learning experiences which guides students' towards academic, social, and cultural excellence.
4. 'Ike Pilina: Cultivates respect and nurtures relationships that connect the school, families, and community.
5. 'Ike Honua: Creates and maintains civic responsibility for culturally responsive, safe and nurturing learning environments.
6. 'Ike Na'auao: Seeks out, maintains and utilizes Hawaiian educational processes, knowledge, perspectives and experiences for the benefit of all students.
7. 'Ike Piko'u: Exhibits a heartfelt love for teaching and a sincere desire for pursuing high professional standards of excellence and ongoing improvement.
8. 'Ike Kuana'ike: Cultivates multiple perspectives that foster an appreciation for diverse worldviews through a Hawaiian lens.
9. 'Ike Ola Pono: Embraces healthy well-rounded and responsible practices as a role model for students.

Admission Requirements

Applicants will be evaluated on the following criteria:

- Completion of the application packet.
- Bachelor's degree from an accredited college or university, in a major approved by the Hawaiian Studies Division requiring a minimum of 120 credits, 45 of which are at the 300 level or above.
- A minimum GPA of 3.0 in the last 60 semester credits completed (including post-baccalaureate credits).
- A minimum GPA of 2.75 in the major.
- Four years of Hawaiian language with a minimum GPA of 2.75 for the third and fourth years, or permission from the Hawaiian Studies Division based on an evaluation of fluency.
- Successful completion of one of the following: HWST 111 Hawaiian 'Ohana (3), HWST 211 Hawaiian Ethnobotany (3), HWST 213 Hawaiian Ethnzoology (3); or permission from the Hawaiian Studies Division based on an evaluation of Hawaiian cultural knowledge and skills.
- Successful completion of one of the following: HWST 205 Hawaiian Music in Action (2), HWST/KHWS 471 Mele 'Auana (3), KHWS/HWST 472 Hula 'Auana (3), KHWS/HWST 473 Oli/Mele Kahiko (3), KHWS/HWST 474 Hula Kahiko (3); or permission from the Hawaiian Studies Division based on an evaluation of Hawaiian cultural knowledge and skills.
- Successful completion of KHAW/HAW 490 Base-level Fluency Hawn Med Ed (1).
- 50 hours of (paid or volunteer) teaching experience through the medium of Hawaiian, **or** 30 hours of (paid or volunteer) teaching experience through the medium of Hawaiian **and** 30 hours of (paid or volunteer) experience in Hawaiian medium curriculum development.
- Passing scores on the Praxis I exams (reading, writing, and mathematics) or equivalent, **and** on Praxis II (Subject Assessments) Content Area Exercises or equivalent, relevant to elementary and secondary level licenses which the applicant will seek from the Hawai'i Teacher Standards Board. Equivalents are those stated in current Hawai'i Teacher Standards Board policy.
- Interview with Kahuawaiola faculty.

Note: In special circumstances, provisional acceptance may be granted by the selection committee for students who meet some, but not all of the above requirements.

Applying to the Program

Applications will be evaluated on submission of the following required documentation in a timely manner.¹ (**Application deadline is December 1st**)

- University of Hawai'i Application for Admission (including processing fee)
- Kahuawaiola Admission Application
- Statement of interest
- Work Experience Verification form
- Three letters of recommendation
- Official college/university transcripts (for EACH post-high institution previously attended)
- Official Praxis I/II scores

¹ Applicants accepted into the program will be required to complete additional documentation prior to the start of the summer session, including but not limited to a criminal background check and fingerprinting as required by the state prior to classroom teaching. For more information, contact the Kahuawaiola office.

Program Requirements (37 credits)

Graduation from the program is based on the successful completion of the following requirements:

11 required courses:

- KED 620 Foundations for Hawn Medium Ed (3)
- KED 621 Lang Arts in Hawn Medium Educ (2)
- KED 623 Social Studies Hawn Medium Ed (2)
- KED 625 Phys Ed in Hawn Medium Ed (1)
- KED 626 Science in Hawn Med Education (2)
- KED 627 Math in Hawn Medium Education (2)
- KED 628 Arts in Hawaiian Medium Educ (1)
- KED 641 Hawaiian Medium Field Exp I (9)
- KED 642 Hawaiian Med Fld Exp I Seminar (3)
- KED 643 Hawaiian Medium Fld Exp II (9)
- KED 644 Hawaiian Med Fld Exp II Sem (3)

Minimum grade of 3.0 in all teacher training courses requiring grades.

Academic Status, Progression, and Readmission Policies

Kahuawaiola runs summer, fall, spring and only takes 12 months to complete. Students are expected to maintain full-time status in three consecutive semesters in order to complete the course work, field experiences, and other requirements of the program. There are no elective courses.

Unless so designated, Kahuawaiola courses may not be taken on a "credit/no credit" basis. A 3.0 GPA must be maintained in all courses. A student whose GPA falls below 3.0 may be dismissed from the program. Likewise, a student may be removed from a field experience if it is determined by Kahuawaiola faculty that the student is not making satisfactory progress toward meeting the requirements of the program. Such removal may result in complete dismissal from the program.



Gainful Employment Disclosure

Beginning July 1, 2011, the US Department of Education began requiring colleges to disclose a variety of information for any financial aid eligible program that "prepares students for gainful employment in a recognized occupation". We hope that this information is helpful to our current students and to prospective students as they make their career and educational choices.

The data includes occupations, placement rates, on-time completion rates, average costs and program median loan debt.

[Gainful Employment Disclosure for Kahuawaiola Indigenous Teacher Education Program](#)

M.A. in Indigenous Language and Culture Education

Coordinator: Makalapua Alencastre, Ed.D.

Email: kaawa@hawaii.edu

Faculty:

- Makalapua Alencastre, Ed.D.
- Betty-Joann Noelani Iokepa-Guerrero, Ed.D.
- Keiki Kawai'ae'a, Ph.D.
- Kananinohea Māka'imoku, M.A.

Note: This program is also assisted by other faculty drawn from Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language and by scholars with a national and international reputation in indigenous language and culture education from outside the college.

For Information Contact:

Ku'ulei Kepa'a Ka Haka 'Ula O Ke'elikōlani

University of Hawaii'i at Hilo

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Tel: (808) 932-7730

Email: kuulei.kepaa@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/ma_hoonaaauo.php

Program Description

The Master of Arts in Indigenous Language and Culture Education is designed for indigenous language and culture education practitioners such as teachers, administrators, and culture resource specialists. The college's Kahuawaiola Indigenous Teacher Education Program, Hale Kuamo'o Center for Hawaiian Language, P-12 laboratory school, baccalaureate, and graduate Hawaiian medium education programs and its consortium with the 'Aha Pūnana Leo provide unique and valuable resources for understanding indigenous language and culture education.

The M.A. program in Indigenous Language and Culture Education currently offers only a Plan B practicing track, which requires students to be fluent in Hawaiian language and to simultaneously pursue the Kahuawaiola Indigenous Teacher's Education Certificate. Hawaiian language use in the majority of Practicing Track courses provides students with the tools to deliver indigenous language and culture education at a high level. In the future, when the faculty is larger, the college intends to open a monitoring indigenous education track that will be open to students focusing on other indigenous languages.

Students accepted into the master's program must have met requirements for study and fluency in the Hawaiian language and culture, which will be their point of reference throughout the program.

Mission

The mission of the M.A. program in Hawaiian and Indigenous Language and Culture Education is to prepare indigenous educators as reflective practitioners and researchers, who are prepared to promote the further development of indigenous culture-based education.

Student Learning Outcomes

1. Apply pedagogy appropriate to maui ola / indigenous language medium and culture-based education.
2. Describe, use and provide rationale of indigenous pedagogy and dispositions within P-12 classrooms.
3. Communicate effectively in both academic and indigenous community environments.
4. Access, analyze and reflect on indigenous knowledge, practices, literature and research findings.
5. Design and conduct culturally appropriate, rigorous and ethical research that is responsive to issues inherent in indigenous language medium and culture-based education.
6. Analyze global trends and perspectives that affect the implementation of indigenous language and culture education.

Admission Requirements for the Practicing Track (Plan B, non-thesis)

1. Bachelor's degree from an accredited college or university with a minimum 3.0 grade point average in an approved field of study, e.g., Indigenous Studies, Ethnic Studies, Education, Languages (including English), etc.;
2. Three letters of recommendation at least one of which must focus on the applicant's background in the Hawaiian language and culture and service to the Hawaiian community;
3. Grade point average of 3.0 or better in the last 60 credits of coursework taken (including coursework taken after the bachelor's degree);
4. 30 credits of study in Hawaiian language or a program approved combination of Hawaiian language and a metropolitan language, Anthropology or Linguistics with no grade lower than a "B" and a 3.0 average;
5. 9 credits of study in the Hawaiian culture or a program approved combination of Hawaiian culture and related social science courses such as Anthropology and Sociology with no grade lower than a "B" and a 3.0 average;
6. Teaching experience, either paid or volunteer;
7. Complete taped interview either in person or by telephone;
8. Graduate Record Exam (GRE) scores;
9. In the case of second language speakers of English, passing scores on the TOFEL as determined by the College or other evidence of English fluency.
10. Prior completion of the Kahuawaiola Indigenous Teacher Education Program or prior completion of any other teacher education program accredited in the State of Hawai'i¹ and successful completion of KHAW/HAW 490 Base-level Fluency Hawn Med Ed (1).

¹ For those who have completed a different teacher education program accredited by the State of Hawai'i, achievement of high level scores on the Kahuawaiola teaching performance evaluation (to be administered by the M.A. program faculty).



Further information on the details of fulfilling admission requirements are available from the program. The College may, under some circumstances, provisionally accept students to the program.

Graduation Requirements

Practicing Indigenous Education Track (Non-thesis) (31 credits)

1. **Group specific indigenous language medium education (13):**
 - o KED 620 Foundations for Hawn Medium Ed (3)
 - o KED 621 Lang Arts in Hawn Medium Educ (2)
 - o KED 623 Social Studies Hawn Medium Ed (2)
 - o KED 625 Phys Ed in Hawn Medium Ed (1)
 - o KED 626 Science in Hawn Med Education (2)
 - o KED 627 Math in Hawn Medium Education (2)
 - o KED 628 Arts in Hawaiian Medium Educ (1)
2. **Field study (6):**
 - o KED 642 Hawaiian Med Fld Exp I Seminar (3)
 - o KED 644 Hawaiian Med Fld Exp II Sem (3)
3. **KED 630 Res Meth in Indigenous Lang (3)**
4. **KED 693 Applied Rsrch in Indigenous Ed (3)**
5. **Appropriate 600-level education, multilingual societies or linguistics electives taken from any two of the following (6):**
 - o HAW 632 Hawaiian As Second Language (3)
 - o KED 660 Indigenous Culture-based Educ (3)
 - o KED 661 Curr Dev Maui Ola-based Sch (3)
 - o KED 662 Indigenous Well-being Thru Edu (3)
6. **Completion of the Kahuwaiola Indigenous Teacher Education Program**
 - o KED 641 Hawaiian Medium Field Exp I (9) and KED 643 Hawaiian Medium Fld Exp II (9)
 - o **or** both waived upon approved equivalent

M.A. in Hawaiian Language and Literature

Coordinator: Hiapo K. Perreira, Ph.D.

Email: hiapokei@hawaii.edu

Faculty:

- Jason Iota Cabral, Ph.D.
- Kekoa Harman, M.A.
- Larry Kimura, Ph.D.
- Hiapo K. Perreira, Ph.D.
- Glenn Silva, Ph.D.
- William Wilson, Ph.D.

For Information Contact:

Ku'ulei Kepa'a

Ka Haka 'Ula O Ke'elikōlani

University of Hawai'i at Hilo

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Hilo, Hawai'i 96720-4091

Tel: (808) 932-7730

Email: kuulei.kepa@hawaii.edu

Program Description

The M.A. in Hawaiian Language and Literature was UH Hilo's first graduate program and the first focusing on a Native American language in the United States. The program is designed for students who have already achieved fluency in spoken Hawaiian and competency in reading modern and historical Hawaiian texts. Student cohorts are accepted

every three years. Currently, the college offers only a Plan A degree, which requires a thesis.

Mission

The mission of the M.A. program in Hawaiian Language and Literature is to prepare scholars to carry out research to enhance our knowledge of Hawaiian language and culture in order to ensure their preservation and revitalization. The program draws upon the tremendous wealth of Hawaiian literary resources from the 19th and 20th centuries and examines the contemporary use of Hawaiian language and culture.

Student Learning Outcomes

1. Demonstrate oral and written comprehension and grammatically correct use of Hawaiian at a level appropriate to graduate work.
2. Identify and explain major aspects of the grammatical structure of a sample of Hawaiian.
3. Describe the history of Hawaiian language and literature and know how to access Hawaiian language resources of various kinds (written and oral, electronic and traditional).
4. Read and analyze important Hawaiian language texts (literary, cultural and historical) from the nineteenth and early twentieth century. Describe the most important of those texts.
5. Demonstrate both knowledge of and skill in performance of Hawaiian chant
6. Write an effective academic paper in Hawaiian (clear, concise, effectively organized, accurate in content, analytical and/or synthetic in nature).
7. Apply various research methods appropriate to Hawaiian language and literature and carry out rigorous research in field.
8. Demonstrate understanding of indigenous and/or endangered language in other contexts through personal experience with speakers and communities of those languages.

Admission Requirements

1. B.A. or B.S. degree from an accredited college or university;
2. 30 credits in Hawaiian Language or Hawaiian Studies at the 300- or 400-level with no grade lower than a "B" and a minimum 3.5 grade point average;
3. Graduate Record Examination scores;
4. Sample undergraduate academic paper (by preference written in Hawaiian);
5. Three letters of recommendation;
6. Interview and successful completion of an examination in Hawaiian language and culture conducted by the Hawaiian Studies faculty, held in the Spring semester prior to Fall admission.

Graduation Requirements (36 credits)

Complete all nine of the following requirements for a total of 36 credits:

1. Earn **12 credits** from the following four courses:
 - o HAW 603 Grad Level Hawn Lang (3)
 - o HAW 630 Research Methods in Hawn Lang (3)
 - o HAW 631 History of Hawaiian Lang & Lit (3)
 - o HWST 663 Traditional Hawn Literature (3)
2. Earn **3 credits** from:
 - o KHWS/HWST 473 Oli/Mele Kahiko (3)
 - o **or** HWST 662 Applied Hawaiian Chant (3)
3. Earn **3 credits** from:
 - o HWST 664 European Influenced Hawn Lit (3)
 - o **or** HWST 665 Ethnological & Hist Narratives (3)



- **or** KANT 486 Mo'omeheu Hawai'i Ku'una (3)
- 4. Earn **3 credits** from:
 - KHAW/HAW 453 Hawn Phonetics & Phonol (3)
 - **or** KHAW/HAW 454 Hawn Morphology & Syntax (3)
 - **or** HAW 654 Advanced Hawn Grammar (3)
- 5. A minimum of **24 credits** must be earned in 600- or 700-level courses, excluding HAW 700 Thesis Research (1-6). Only six credits may be counted in 400-level classes.
- 6. Earn **3 credits** from either HAW 690 Study in Hawn Spking Community (3) **or** HWST 690 Study in Overseas Ind Lg Comm (3) (course must be approved by program chair). Students typically study for at least six weeks with an endangered language community.
- 7. Earn **6 additional credits** in 400-, 500-, or 600-level Hawaiian Language or Hawaiian Studies courses from the following list (remember that not more than 6 hours in total may be counted at the 400-level):
 - KHAW/HAW or KHWS/HWST 400-498, 600-699V (except KHAW/HAW 490)
 - KED 600-699V (except KED 641-644)
 - KANT 486 Mo'omeheu Hawai'i Ku'una (3)
 - KIND 601-602 Language Maintenance and Shift (3), Meth/Resou Indig Lang Comm Blg (3)
 - Up to six credits taken at another university with prior approval from the program chair and then transferred to the University of Hawai'i at Hilo
- 8. Earn **6 credits** from:
 - HAW 693 Thesis and Proposal Writing (3)
 - **or** HAW 700 Thesis Research (1-6)
- 9. Earn no grade lower than a "B."

Under certain circumstances a student may request a transfer from the Masters in Hawaiian Language and Literature to the Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization after completing a minimum of 18 credits of graduate work determined appropriate by the program faculty.

Please note: The Graduate Division policy is that **no more than 6 credits of 400-level courses may count towards the Master's degree.** Any 400-level courses taken must be approved by both the department and the Graduate Division.

Ph.D. in Hawaiian and Indigenous Language and Culture Revitalization

Coordinator: Scott Saft, Ph.D

Email: saft@hawaii.edu

Website: www.olelo.hawaii.edu/khuok/laeula.php

Faculty:

- Jason Iota Cabral, Ph.D.
- Betty-Joann Noelani Iokepa-Guerrero, Ed.D.
- Kauanoē Kamanā, Ph.D.
- Larry Kimura, Ph.D.
- Yumiko Ohara, Ph.D.
- Hiapokeikikane Perreira, Ph.D.
- Scott Saft, Ph.D.
- Glenn Kalena Silva, Ph.D.
- William Wilson, Ph.D.

Affiliate Instructional Faculty:

- John Charlot, University of Hawai'i at Mānoa, Professor of Religion

- Larry Kaplan, University of Alaska Fairbanks, Professor of Linguistics and Director of Alaska Native Language Center
- M. Puakea Nogelmeier, University of Hawai'i at Mānoa, Associate Professor, Kawaihuelani Center for Hawaiian Language

For Information Contact:

Ku'ulei Kepa'a Ka Haka 'Ula O Ke'elikōlani

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Program Description

Ka Haka 'Ula O Ke'elikōlani is widely recognized as the leader in indigenous language revitalization in the United States, and indeed the North Pacific Basin. Concentrated in Hilo is a preschool through graduate school Hawaiian medium educational system and key support offices providing administrative, curricular, language planning, and technological support to programs throughout the Hawaiian islands. In addition, Ka Haka 'Ula O Ke'elikōlani provides government sponsored outreach services to support indigenous languages throughout Polynesia and the United States.

The Doctorate in Hawaiian and Indigenous Language and Culture Revitalization is designed first to serve the needs of the State of Hawai'i for advanced academic training and scholarly research in the Hawaiian language. An additional goal is to use the internationally recognized successful model of Hawaiian language revitalization to provide other indigenous scholars and language educators with graduate level education relevant to the revitalization of their own languages and cultures. By providing a forum for the exchange of ideas and research on the many issues involved in revitalizing indigenous languages and cultures elsewhere, Hawaiian revitalization will be further strengthened.

All students in the doctoral program are required to speak an indigenous language - their "language of focus" - and further develop their knowledge of that language in courses that explore the similarities and differences among such languages. In addition, students choose two specializations from among the four systematic fields offered in the program, a) Indigenous Language and Culture Education, b) Indigenous Language and Culture in Society, c) Language Planning, and d) Hawaiian Language and Culture. Thus, students who focus on a non-Hawaiian indigenous language will choose two specializations from areas a), b), and c); students who focus on Hawaiian language may choose among all four areas.

A number of possible paths from other universities lead into the doctoral program, including the master's in Indigenous Studies, Anthropology, Languages (including English), and Linguistics. For those with a strong interest in Hawaiian, the College itself provides the Master of Arts in Hawaiian Language and Literature, the first master's in an indigenous language in the United States. In addition, the College provides a pathway for non-Hawaiian language specialists through the Master of Arts in Indigenous Language and Culture Education. The two master's programs are described earlier in this section.

Mission

The mission of the Ph.D. program in Hawaiian and Indigenous Language and Culture Revitalization is to train well rounded Hawaiian and other indigenous scholars who are prepared to take leadership roles within



their communities in indigenous language and culture revitalization.

Student Learning Outcomes

1. Describe and evaluate important current ideas and data in two of the four areas of program specialization (a. indigenous language and culture education, b. indigenous language and culture in society, c. indigenous language planning, d. Hawaiian language and culture)
2. Integrate the fundamentals of all three areas—indigenous language and culture education, indigenous language and culture in society, indigenous language planning—to solve real problems in maintaining and revitalizing indigenous language and culture.
3. Analyze their indigenous language of focus in terms of its grammar, semantics and socio-linguistic variation.
4. Write effective academic papers (clear, concise, effectively organized, accurate in content, analytical and/or synthetic in nature).
5. Write effective non-academic essays to inform public opinion concerning indigenous language and culture revitalization.
6. Communicate effectively in government and indigenous community environments.
7. Apply various research methods appropriate to research in indigenous language and culture revitalization and can carry out rigorous research in the field.
8. Exhibit leadership potential for revitalization of their indigenous language and culture.

Admission Requirements

1. Master's degree from an accredited college or university with a minimum 3.0 grade point average in an approved field of study (e.g., Hawaiian Language and Literature, Indigenous Studies, Anthropology, Languages, etc).
2. Proficiency in and academic knowledge of the applicant's indigenous language of focus, as demonstrated by a taped speech and written essay, with English translation. (The level of proficiency and academic knowledge required will depend on the status of the indigenous language, in terms of how endangered it is and how much linguistic description has been done.)
3. A letter requesting admission to the program which describes the applicant's:
 - o academic objectives and research interests.
 - o experience in educational service to his or her indigenous language of focus.
 - o diverse experience with the contemporary status of an indigenous or threatened language and culture besides the student's own indigenous language of focus. The social and political environment of this additional language should be different from that of the student's language of focus.
 - o future plans regarding work to revitalize his or her indigenous language and culture.
4. A sample of written work (usually the master's thesis).
5. Course work of at least 6 credits in general linguistics, linguistic analysis, and sociolinguistics
6. Complete taped interview either in person or by telephone.
7. Three letters of recommendation, at least one of which must focus on the applicant's background in the language and culture of an indigenous people and service to that indigenous community.
8. For second language speakers of English, passing scores on the TOFEL or other evidence of English fluency.

Further information on the details of fulfilling admissions requirements are available from the Director of Ka Haka 'Ula O Ke'elikōlani College of Hawaiian Language.

Graduation Requirements

1. KIND 730 Rsch Meth Hwn Ind Lang Culture (3)
2. **Eight Credits** in Advanced Study of Language of Focus:
 - o KLAN 701 Semantic/Pragmatic Indig Lang (1)
 - o KLAN 702 Stylistics/Domains Indig Lang (1)
 - o KLAN 703 Semantics-Prag of Indig Lang (3)
 - o KLAN 704 Stylistics-Domain of Indig Lan (3)
 - o These credits are directed toward improved analytical and fluency skills in the student's language of focus and its culture. KLAN 701-702 are seminars taken by all students to develop common understandings and form the basis for KLAN 703-704, which focus specifically on Hawaiian or other indigenous languages depending on student interests.
3. Additional Language Requirement:
 - o For students whose language of focus is Hawaiian, the additional language requirement will be met by demonstrated fluency and academic knowledge of any approved second language equivalent to the 102 level as taught at UH Hilo.
 - o For students whose language of focus is other than Hawaiian, the additional language requirement will be met by demonstrated fluency and academic knowledge of Hawaiian equivalent to the 102 level as taught at UH Hilo.
4. Two Areas of Specialization:
 - o Students will focus on **two** of the four areas of specialization provided in the program: (a) Indigenous Language and Culture Education, (b) Indigenous Language and Culture In Society, (c) Language Planning, and (d) Hawaiian Language and Culture. Specific research themes to be addressed within these broad areas are diverse in order to allow maximum application to student dissertation interests. Examples of such areas are literacy in indigenous languages, indigenous language media, spirituality and religion in traditional Hawaiian thought, lexicon development, indigenous language testing and evaluation, colonialism and neocolonialism as factors in indigenous language and culture revitalization, technology in indigenous language revitalization, diversity in indigenous languages and societies, ecological planning for indigenous language and culture survival, etc.
 - o The amount of course work in the two areas of specialization is dependent on the student's graduate committee, who will determine when the student is sufficiently prepared to take comprehensive examinations in the two areas. At a minimum the student must complete two of the following courses (together with the prerequisites) listed below:
 - KED 794 Indigenous Language and Culture Education (3) (Pre: KED 660 Indigenous Culture-based Educ (3), KED 662 Indigenous Well-being Thru Edu (3) or equivalent)
 - KIND 794 Indigenous Language and Culture In Society (3) (Pre: KIND 601 Language Maintenance and Shift (3), KIND 602 Meth/Resou Indig Lang Comm Blg (3) or equivalent)
 - KLIN 794 Language Planning (3) (Pre: KIND 601 Language Maintenance and Shift (3), KIND 602 Meth/Resou Indig Lang Comm Blg (3) or equivalent)
 - HWST 794 Hawaiian Language and Culture (3) (Pre: HAW



631 History of Hawaiian Lang & Lit (3), HAW 654 Advanced HawN Grammar (3), HWST 663 Traditional HawN Literature (3), HWST 665 Ethnological & Hist Narratives (3) or consent of instructor)

5. Students may take up to six semester credits (or equivalent) at another accredited university in courses pre-approved by the program chair and transfer the credits to the University of Hawaii at Hilo in place of any of the listed program courses.
6. Completion of all graduate courses with a grade no lower than "B."
7. Successful completion of a comprehensive examination consisting of oral and/or written questions, after the student's Graduate Committee determines the student has had sufficient preparation in the field of study to begin work on the dissertation.
8. Submission and approval of a portfolio which documents the student's work to improve public opinion and/or government policy concerning the revitalization of the student's language and culture of focus. The portfolio may include newspaper or periodical articles or oral presentations aimed at the student's indigenous community or the larger public; it may include written material or oral testimony given at government forums concerned with indigenous language and culture revitalization.
9. Successful completion of a dissertation, with enrollment in a minimum of six credits of KIND 800 Doctoral Dissertation Research (1-6) (V) during the writing of the dissertation. A final oral examination in defense of the dissertation is then required upon completion of the dissertation.

Doctor of Nursing Practice (D.N.P.)

Program Coordinator: Alice E. Davis, Ph.D., APRN

Email: aedavis@hawaii.edu

University of Hawai'i at Hilo, [School of Nursing](#) (UH Hilo SON)
School of Nursing Office
200 W. Kāwili Street
Hilo, HI 96720

Program Description

The Doctor of Nursing Practice (DNP) is the practice-focused doctoral degree developed in response to the endorsement of the American Association of Colleges of Nursing (AACN) position paper recognizing the DNP as the credential for advanced nursing practice. The DNP is equivalent to entry level professional degrees offered by other health care disciplines including Doctor of Medicine (MD), Doctor of Dental Surgery (DDS) and the Doctor of Pharmacy (PharmD). Opportunities culminating in a practice inquiry project. The curriculum is based on the AACN essentials of Doctoral education for Advanced Practice Nurses. Students will participate in lectures, seminars, laboratory simulations, and site visits to rural communities. Research methods and evidence based practice provide opportunities for data analysis, research critique, evidence-based presentations, formulation and evaluation of a practice inquiry research project. At the conclusion of the program, all students will demonstrate competence in the eight essentials of doctoral education, be prepared for their specialty role as an individual health care provider, and be trained for leadership roles within the larger health care system.

Mission

The Doctorate of Nursing practice (DNP) is a program designed to prepare the nurse at an advanced level of nursing science. The program

emphasizes the development of the student's capacity to impact the clinical setting as leaders and educators and to utilize clinical research to improve and transform health care. Our program is based on the understanding that nursing provides services which includes the direct care of individual clients, transcultural nursing, management of care for rural populations, administration of nursing systems, and development and implementation of health policy. In addition, the program will encompass health policy, health economics, cultural diversity, chronic care management, health promotion, and disease prevention in rural communities and will create a cadre of new nursing faculty who can immediately address the nursing faculty shortage. Advanced practice nurses with practice doctorates will address significant practice issues in a scholarly way, adopt broad system perspectives for health promotion and risk reduction, and act as agents of change that transform client/community care, participate in the on-going evaluation of health care outcomes, and assist in the translation of research that leads to positive nursing practice changes.

Program Learning Outcomes

The UH Hilo SON ascribes to the curricular elements and competencies of the DNP degree proposed by the [American Association of Colleges of Nursing \(AACN\)](#). The DNP essentials describe the necessary foundational outcomes required for the DNP graduate.

1. Scientific Underpinnings for Practice
2. Organizational and Systems Leadership for Quality Improvement and Systems Thinking
3. Clinical Scholarship and Analytical Methods for Evidence-Based Practice
4. Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care
5. Health Care Policy for Advocacy in Health Care
6. Interprofessional Collaboration for Improving Patient and Population Health Outcomes
7. Clinical Prevention and Population Health for Improving the Nation's Health
8. Advanced Nursing Practice

Student Learning Outcomes

Graduates from the DNP program will achieve the following program learning outcomes as a result of an integrated approach to learning, problem solving, evidence-based knowledge utilization, and skill acquisition:

1. Synthesize theoretical knowledge and research evidence in designing primary care delivery for diverse populations across the lifespan in rural contexts.
2. Collaborate with multidisciplinary professions, multisectoral agencies and lay communities to influence social and health policies impacting rural population health.
3. Assume leadership role in organizational systems to improve rural population health in local and regional communities.
4. Promote adherence to professional and ethical-legal standards of practice by individual professionals and organizations.
5. Integrate cultural competence and social justice in addressing health disparities in rural populations.
6. Examine research evidence in design and implementation and evaluation of policies and programs for population health in rural communities.
7. Use best practices and technology to improve care delivery for diverse individuals, families and communities within the continuum of primary, secondary and tertiary care.



8. Create educational programs to develop culturally competent practice and education of the nursing workforce .
9. Design educational programs and evaluation programs to enhance rural community empowerment for health.

Admission Requirements

Acceptance is granted at the discretion of the Doctor of Nursing Practice Admissions Committee based on the criteria below:

- UH Graduate Application
- Application fee
- SON Supplemental Application
- Transcripts from all accredited colleges
- Min GPA of 3.0
- Current Hawaii RN License, in addition to current RN license where you intend to practice
- 3 recommendations (two from faculty, one from employer/professional)
- Professional Goal essay
- Interview with graduate faculty
- Current CV/Resume
- Background check (at the time of acceptance into the program)
- Health Clearance: Tuberculosis clearance documentation, documentation for tetanus/diphtheria vaccination received within the last ten years; documentation for hepatitis-B vaccination series or serological evidence of immunity; serological evidence of immunity to mumps, rubella, rubeola, and varicella (at the time of acceptance into the program)

Foreign applicants must also submit:

1. International Graduate Student Supplemental Information Form
2. Official TOEFL score report
3. Completion of the CGFNS Qualifying exam

Program Entry Points

Students have two program entry points to earn the Doctor of Nursing Practice degree:

- The Post Baccalaureate DNP entry point is intended to allow entry into the DNP program for nurses who are not already advanced practice registered nurses (APRNs).The program will educate registered nurses to be Family Nurse Practitioners (FNP) with foci in Gerontological Nursing, Transcultural Nursing, and Rural Health Care.
- The Post Masters DNP entry point offers nurses with advanced degrees in nursing specialty areas (e.g. education, administration, practice, information systems management, leadership, etc.) a doctoral program, which expands their level of practice expertise.

Further information on the details of fulfilling admissions requirements are available from the DNP Program Admissions office (808) 932-7067, [School of Nursing website](#), or [Admissions Office DNP information](#).

Graduation Requirements

1. Completion of all graduate courses for the specific entry point enrolled (BSN-DNP or MSN-DNP)
2. Minimum accepted GPA of 3.0 in all graduate courses
3. Successful completion of 1000 practice hours or portion thereof based on previous practice experience
4. Successful completion of Family Nurse Practitioner (FNP) competencies (BSN-DNP entry point only)

5. Successful completion of a Practice Inquiry Project
6. Successful presentation of the Practice Inquiry Project at an oral defense
7. Compliance with UH Hilo rules and regulations for graduation

Post-BSN to DNP Required Courses (71-73 credits)

- NURS 618 EPI/Environmental Health (3)
- NURS 601 Social Aspects of Health (3)
- NURS 602 Information Systems/Technology (3)
- NURS 603 Adv Clinical Pharmacology (3)
- NURS 604 Advanced Clin Pathophysiology (3)
- NURS 605 Advanced Health Assessment (4)
- NURS 606-606L Rural Health Promotion (3), Rural Health Promotion Lab (3)
- NURS 607-607L Primary Care of Adults (3), Primary Care of Adults Lab (3)
- NURS 608-608L Primary Care of Older Adults (3), Prim. Care of Older Adults Lab (3)
- NURS 609-609L Primary Care of Women (2), Primary Care of Women Lab (2)
- NURS 610-610L Primary Care of Children (2), Primary Care of Children Lab (2)
- NURS 611 Advanced Research Methods (3)
- NURS 612 Evidence Based Practice (3)
- NURS 613 Program Develop/Evaluation (3)
- NURS 614 System-Based Leadership (3)
- NURS 615 Health Policy: Local to Global (4)
- NURS 616 Health Economics (3)
- NURS 617 Practice Inquiry/Project (6)
- Elective (1-3) (A graduate elective is required.)

MSN to DNP Required Courses (38-40 credits)

- NURS 618 EPI/Environmental Health (3)
- NURS 601 Social Aspects of Health (3)
- NURS 602 Information Systems/Technology (3)
- NURS 606 Rural Health Promotion (3)
- NURS 611 Advanced Research Methods (3)
- NURS 612 Evidence Based Practice (3)
- NURS 613 Program Develop/Evaluation (3)
- NURS 614 System-Based Leadership (3)
- NURS 615 Health Policy: Local to Global (4)
- NURS 616 Health Economics (3)
- NURS 617 Practice Inquiry/Project (6)
- Elective (1-3) (A graduate elective is required.)

Daniel K. Inouye College of Pharmacy (DKICP) Graduate Programs

Dean: [Carolyn Ma](#), Pharm.D., BCOP, CHTP/I
University of Hawai'i at Hilo
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Hilo, HI 96720

Email: pharmacy@hawaii.edu

Website: pharmacy.uhh.hawaii.edu

Interim Associate Dean for Academic Affairs: [Aaron Jacobs](#), Ph.D.

Chair, Department of Pharmaceutical Sciences: [Linda Connelly](#), Ph.D.



Chair, Department of Pharmacy Practice: [Roy Goo](#), Pharm.D.

Professors:

- [Susan Jarvi](#), Ph.D.
- [Deborah Taira](#), Sc.D.
- [Supakit Wongwiwatthananukit](#), PharmD, Ph.D.

Associate Professors:

- [Julie A. L. Adrian](#), D.V.M.
- [Shugeng Cao](#), Ph.D.
- [Leng Chee Chang](#), Ph.D.
- [Linda Connelly](#), Ph.D.
- [Roy Goo](#), Pharm.D.
- [Daniela Guendisch](#), Ph.D.
- [Aaron Jacobs](#), Ph.D.
- [Dana-Lynn Ko'omoa-Lange](#), Ph.D.
- [Carolyn Ma](#), Pharm.D., BCOP, CHTP/I
- [Dianqing Sun](#) Ph.D.
- [Ghee Tan](#), Ph.D.
- [Sheri Tokumaru](#), Pharm.D., BCPS

Assistant Professors:

- [Cherie Chu](#), Pharm.D., BCPS
- [Chad Kawakami](#), Pharm.D., BCPS, CDE
- [Louis Lteif](#), Pharm.D., BCPS
- [Camlyn Masuda](#), Pharm.D., BCACP, CDE
- [Jarred Prudencio](#), Pharm.D.
- [Allen Shih](#), Pharm.D., BCPS

Instructors:

- [Ingo Koomoa-Lange](#)
- [George Karvas](#), R.Ph.

Associate Specialists:

- [Lara Gomez](#), Pharm.D.
- [Patricia Juszczak](#), R.Ph.
- [Wesley Sumida](#), Pharm.D., BCPS

Assistant Specialists:

- [Anita Ciarleglio](#), Ph.D.
- [Tamara Kondratyuk](#), Ph.D.

Junior Specialists:

- [Tamara Kondratyuk](#), Ph.D.

Director of Clinical Education: [Lara Gomez](#), Pharm.D.

Clinical Education Coordinators:

- [Michelle Kim](#), Pharm.D.

Director of Continuing Education/Distance Education and Strategic Planning: [Karen L. Pellegrin](#), Ph.D., M.B.A.

Director of Student Services: [Daryl Masanda](#)

Director of MS in Clinical Psychopharmacology: [Supakit Wongwiwatthananukit](#), PharmD, Ph.D.

Director of PhD Program in Pharmaceutical Sciences: [Ghee Tan](#),

Ph.D.

Laboratory Manager: [Tamara Kondratyuk](#), Ph.D.

Programs

- [Doctor of Pharmacy \(Pharm.D.\)](#)
- [Rural Health Graduate Certificate \(PharmD\)](#)
- [Ph.D. in Pharmaceutical Sciences](#)
- [Pharmaceutical Science \(PHPS\) Post-Baccalaureate Courses](#)
- [Pharmacy Practice \(PHPP\) Post-Baccalaureate Courses](#)

Doctor of Pharmacy (Pharm.D.)

Dean: [Carolyn Ma](#), Pharm.D., BCOP, CHTP/I

Interim Associate Dean for Academic Affairs: [Aaron Jacobs](#), Ph.D.

Department of Pharmaceutical Sciences: [Linda Connelly](#), Ph.D.

Department of Pharmacy Practice: [Roy Goo](#), Pharm.D.

UH Hilo

[Daniel K. Inouye College of Pharmacy \(DKICP\)](#)

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Program Description

The University of Hawai'i at Hilo's Daniel K. Inouye College of Pharmacy (DKICP) is a four-year educational and experiential program through which students pursue the Doctor of Pharmacy (Pharm.D.) degree. The Pharm.D. program prepares the student for entry into the pharmacy profession. During the four years at DKICP, students will complete a total of 138 semester hours of credit; 89 hours in required courses, 4 credit hours in elective professional courses, and 45 credit hours in clinical/experiential education.

Mission

The mission of the University of Hawai'i at Hilo DKICP is the traditional mission of academic healthcare—education, research, and service with emphasis on patient care. More specifically, our mission is:

- To educate pharmacy practitioners and leaders.
- To serve as a catalyst for innovations and discoveries in pharmaceutical science and practice for the promotion of health and wellbeing.
- To provide community service, including quality patient care

Program Goals

The DKICP mission is predicated on four overarching goals:

- Implement academic curricula that lead to a flagship Pharm.D. program, which produces graduates committed to serving people via science-based practice.
- Accountability to the Institute of Medicine's core competencies for the health professional workforce.
- Conduct research that advances pharmaceutical sciences and makes a difference for humanity inclusive of effects on global health.
- Cultivate culturally competent, intellectually inquisitive, self-directed, caring pharmacists who are critical thinkers, problem



solvers and life-long learners in a changing healthcare environment.

Student Learning Outcomes

At the conclusion of the four year PharmD program a graduate will be able to:

1. Think critically and solve problems effectively.
2. Communicate effectively with patients and other health care providers in all matters related to providing pharmaceutical care.
3. Make ethical decisions concerning pharmaceutical care.
4. Demonstrate professional and social responsibility.
5. Engage in self-directed learning.
6. Manage all aspects of pharmacy related activities.
7. Promote public health and provide drug information and education to patients and other health care providers.

Values

A values framework underpins the DKICP mission and vision in its commitment to building a culture of quality and excellence in pharmacy practice and pharmaceutical sciences via enactment of five values:

- **Ethics** underlies responsibility and accountability to standards in ensuring safe, quality, healthy environments for education, conducting research, providing pharmaceutical healthcare services, and sustaining livelihood. The DKICP thrives upon ethical decision-making and morality.
- **Community** is cultivated through spaces of collaborations and places of meaning, respect, openness, freedom and creativity. The DKICP is rooted in humanism.
- **Diversity** among people, cultures, theories, practices, institutions permeate 21st century healthcare. The DKICP embraces and celebrates diversity, with a niche in cultural diversity.
- **Scholarship** is the passion and outcomes of academic and professional life. The quest of the DKICP for quality and excellence affirms scholarly pursuits.
- **Life-long learning** is the pathway to stimulating pharmacy practice on a continuum of development and advancing pharmacy as a science and profession. The DKICP is nurtured via the continuum of lifelong education.

Vision

The vision of the DKICP at the University of Hawai'i at Hilo is to drive improvement in the quality of healthcare in Hawai'i and throughout the Pacific Basin. We are achieving this vision by focusing on Hawai'i's unique cultural, physical, and geographic features, by employing world-class faculty, and by graduating exceptional professionals.

Prospects for Graduates

Graduates of the Pharm.D. program at the University of Hawai'i at Hilo will be able to seek employment as pharmacists in a variety of professional settings. Their professional duties may include, but are not limited to, distribution of drugs prescribed by physicians and other health care practitioners, providing information about prescriptions and their use to their patients and customers, advising health care professionals on the prescription and interaction of drug therapies, compounding, pharmaceutical research, hiring and supervision of staff, business operations of pharmacies, administering of vaccinations, etc. The job outlook for pharmacists remains strong nationwide and in Hawai'i. There is currently a shortage of community, clinical and research pharmacists. It is expected that the field of pharmacy will grow at a "faster than

average" rate over the next decade ([Bureau of Labor Statistics Occupational Outlook Handbook: Pharmacists](#)). In order to practice as a registered pharmacist (R.Ph.), state licensure is required.

Admission Requirements

To be eligible for consideration, students must complete the following:

- Completion of the prerequisite courses including:

Required Pre-Requisite Courses	Credits
General Biology I and II with Labs	8
Microbiology with Lab	4
General Chemistry I and II with Labs	8
Organic Chemistry I and II with Labs	8
Human Anatomy & Physiology I and II with Labs	8
Calculus	3
English (including 3 credits composition)	6
Humanities	6
A course that includes a world/cultural diversity component	3
Social/Behavioral Sciences	6
Economics	3
Communications (with a public speaking component)	3
<i>Total</i>	<i>66</i>

Please Note: The most current listings of prerequisite courses can be found on the [DKICP website](#). Prerequisites are subject to change. International applicants must also complete a minimum of 30 semester hours of coursework in the United States at any regionally-accredited college or University. Of the 30 required hours, 15 semester hours must be allocated to non-remedial science courses.

- Completion of the [PCAT](#) and submission of official scores to [PharmCAS](#). Applicants are encouraged to take the PCAT in July or September of the application year or earlier.
- Completion and submission of the [PharmCAS](#) application including two professional letters of recommendation and applicable fees.
- Completion and submission of the supplemental application to be requested via email by UH Hilo DKICP.

Meeting the minimum qualification requirements does not guarantee admission. All eligible applications are reviewed by the UH Hilo DKICP Admissions Committee which applies multiple criteria to assess applications and select candidates to be reviewed.

UH Hilo DKICP annually accepts 80-90 students for Fall admissions.

Application Procedure

UH Hilo CoP operates on a competitive, rolling admissions process. **Early submission is strongly recommended.** Applicants are responsible for tracking the progress of their application and verifying that all necessary documents have been received by the UH Hilo DKICP Office of Student Services. The application review process begins in August 2016 and continues until all seats are filled. Upon receipt of all required application components noted above, the complete file and applicant profile will be reviewed by the UH Hilo DKICP Admissions Committee. At that time, the committee will decide to invite the candidate for an interview, place the candidate on hold for further review, or reject the applicant. Eligible



students will be invited for a personal interview and are contacted via email. UH Hilo DKICP conducts closed file interviews. In closed file interviews, the interviewer is not provided with any information about the candidate except for their name. This approach was selected by the Admissions Committee as it helps remove preconceived biases based on students' experiences, grades, test scores, personal statements, etc. Interviews are conducted from December 2016 through May 2017 with additional interviews as needed. Complete applications and interview scores are reviewed by the Admissions Committee for final admission decisions. Accepted students will be notified by email.

Early Decision

DKICP participates in the PharmCAS Early Decision Program which is a binding option for applicants who have decided that a particular pharmacy degree program is their first choice and that they will enroll if accepted. Early Decision applicants may only apply to one pharmacy degree program. Early decision deadline to be determined by PharmCAS (early September of the application cycle). Eligible applicants will be invited to an in-person interview in Hilo during the month of October.

Applicants may be offered early admission, denied admission, or deferred to regular applicant status. If offered admission as an Early Decision applicant, applicants are obligated to accept the offer and they will not be permitted to apply to other PharmCAS institutions. If, however, an applicant is denied admission as an Early Admission applicant or deferred to regular applicant status, they may apply to other PharmCAS institutions for an additional fee.

Curricula

Professional Year 1 Fall Courses (18 credits)

- PHPP 501 Intr Pharm Prac Experiential I (1)
- PHPS 504 Pharmaceutical Immunology (3)
- PHPS 501 Biochemistry - Biomolecules (2)
- PHPS 505 Pharmaceutics I (3)
- PHPP 510 Pharmacy Self Care I (2)
- PHPS 503 Pharmaceutical Calculations (2)
- PHPS 540 Drug Action - Part I (2)
- PHPP 528 Pharmacy Comm & Culture (3)

Professional Year 1 Spring Courses (16 credits)

- PHPP 502 Int Pharm Prac Experiential II (1)
- PHPP 508 Intro to Biostatistics (3)
- PHPS 509 Applied Pathophysiology (3)
- PHPS 502 Biochemistry - Metabolism (2)
- PHPS 506 Pharmaceutics II (3)
- PHPS 511 Pharmacokinetics (3)
- PHPS 541 Drug Action - Part II (2)

Professional Year 2 Fall Courses (17 credits)

- PHPP 503 Intr Pharm Prac Experien III (1)
- PHPP 506 Int Pharm Prac Exp - Retail (1)
- PHPP 514 Evidence-Based Medicine (3)
- PHPP 515 Integrated Therapeutics I (7)
- PHPS 511 Pharmacokinetics (3)
- PHPP 527 Drug Information (2)

Professional Year 2 Spring Courses (17 credits)

- PHPP 504 Intr Pharm Prac Experien IV (1)
- PHPP 520 Pharmacy Law and Ethics (3)

- PHPP 523 Wellness & Disease Prevention (2)
- PHPP 516 Integrated Therapeutics II (7)
- PHPP 519 Health Care Systems (2)
- Elective (2) Choose two credits of electives

Professional Year 3 Fall Courses (16 credits)

- PHPP 505 Intr Pharm Prac Experiential V (1)
- PHPP 507 Int Pharm Practice Exp - VII (1)
- PHPP 522 Pharm Practice Mgmt & Mktng (2)
- PHPP 517 Integrated Therapeutics III (7)
- PHPP 525 Complementary Medicine (3)
- Electives (2). Choose **two** credits of electives

Professional Year 3 Spring Courses (17 credits)

- PHPP 509 Adv Pharm Pract Exp: Medicine (5)
- PHPP 524 Pharmacoeconomics (2)
- PHPP 518 Integrated Therapeutics IV (7)
- PHPP 521 Applied Pharmaceutical Care (3)
- PHPS 591 Basic & Applied Toxicology (3)
- PHPP 533 Pharmacogenomics (2)

Professional Year 4 Courses (37 credits)

Fourth Year (P-4) - Advanced Professional Practice Experiences: 42 weeks

- PHPP 540 Adv Pharm Prac Exp: Ambulatory (6)
- PHPP 541 Adv Pharm Prac Exp: Community (6)
- PHPP 542 Adv Parm Prac Exp: Medicine (6)
- PHPP 543 Adv Pharm Pract Exp: Hospital (6)
- PHPP 547 APPE - NAPLEX/MPJE Preparation (1)
- PHPP 544 Adv Pharm Pract Exp: Elect I (6)
- PHPP 545 Adv Pharm Prac Exp: Elect II (6)

Electives - (6 credits)

- PHPP 546 Adv Pharm Practice Experience (6)

Electives - (3 credits)

- ECON 430 Quantitative Forecasting (3)
- MGT 490 Strategic Mgt (3)

Electives - (2 credits)

- PHPP 550 History of Pharmacy (2)
- PHPS 550 Genetics in Medicine (2)
- PHPP 531 Survey, Epidem, Qual Methods (1)
- PHPP 567 Rural Health Science Intro (2)
- PHPP 568 Rural Health Science Advanced (2)

Variable (1 or 2 credits)

- PHPP 555 Intro to Veterinary Medicine (1-2)
- PHPP 599 Directed Studies (To Be Arranged)
- PHPS 599 Directed Studies (To Be Arranged)

Electives - (1 credit)

- PHPP 553 Current Topics in Healthcare (1)
- PHPP 557 Personal Finance (1)
- PHPP 554 Zoonotic Diseases (1)
- PHPP 556 Adv Topics in Hypertension (1)
- PHPS 553 Radioactivity in Pharmacy (1)
- PHPP 559 Spanish for Healthcare Profess (1)



- PHPP 560 Pharmacy Leadership (1)
- PHPP 564 Advanced Managed Health Care (1)
- PHPS 554 Herb Med & Hawaiian Med Plants (1)
- PHPS 555 Geographic (Tropical) Medicine (1)
- PHPS 559 Environmental Toxicology (1)
- PHPS 562 Disc & Dev of Blockbuster Drug (1)
- PHPS 563 Curr Adv in Neuropharmacology (1)
- PHPS 565 Genetics & Pharm of Malaria (1)
- PHPS 561 Emerging Trends Drug Discovery (1)
- PHPS 567 Pharmacogenetics (1)
- PHPS 568 Antibiotic Mechanisms & Applic (1)
- PHPS 569 Cancer Prevention (1)
- PHPS 570 Drugs from the Ocean (1)
- PHPP 561 Pharmacy and Therapeutics Comp (1)
- PHPP 530 Basic Research Methods (1)
- PHPP 531 Survey, Epidem, Qual Methods (1)
- PHPP 532 Pharmacy Research (1)
- PHPP 558 Business Admin Overview (1)

Minimum semester hours required for the Doctor of Pharmacy degree:

138 credits.

Health Sciences Research Certificate

Coordinator Deborah Taira, ScD, Associate Professor
Email dtjuarez@hawaii.edu

Program Description

This certificate is designed to give Pharm D students an introduction to basic research methods as well as experience completing a research project. Students will receive an introduction to research methodology in pharmacy, including clinical studies, analysis of existing data, program evaluation and big data designs. Students will also receive training in human subjects research and scientific writing. Topics for research projects will vary based on student interest, mentors, and available data.

Writing skills to be covered include:

- Research abstract
- Biosketch
- Publishable paper
- Survey questions for research

Program Mission

This goal is to make PharmD students more competitive for post-graduate residency programs, which are increasingly required for jobs in clinical and academic settings. This program benefits the current curriculum by aligning student coursework to support research activities in both academic departments.

Student Learning Objectives

- Discuss different types of experimental/research designs
- Describe advantages and disadvantages of each design
- Display data in different ways to facilitate understanding of main points
- Interpret different types of graphs
- Demonstrate knowledge of ethical and privacy issues in research by completing CITI training

- Strengthen research-related writing skills through creation of a strong research abstract and poster presentation
- Prepare for a potential research grant submission by completing a NIH biosketch
- Discuss the pros and cons of survey research
- Identify the main theoretical and procedural aspects of qualitative research
- Define qualitative research
- Use the language of qualitative research
- Explore rationale for use of qualitative or naturalistic research methods in clinical, social, and behavioral settings
- Define pharmacoepidemiology
- Utilize existing data to examine an issue in pharmacoepidemiology
- Examine how and why people access pharmacy services
- Determine the best resources for finding cost information for medications
- Measure patient outcomes resulting from pharmacy services or medication use
- Conduct a program evaluation of pharmaceutical services or behavioral interventions

Program Prerequisite Requirements

- Must have completed P1 (first year) in the PharmD program with a GPA of 3.0 or better
- Must maintain a GPA of 3.0 or better to remain in the certificate program
- Must not be on probation

Program Curriculum (21 Credits)

Students must complete 21 credits, including 10 elective credits

Core Courses: (11 Credits)

- PHPP 530 Basic Research Methods (1)
- PHPP 531 Survey, Epidem, Qual Methods (1)
- PHPP 532 Pharmacy Research (1)
- PHPS 599 Directed Studies (To Be Arranged)
- PHPP 544 Adv Pharm Pract Exp: Elect I (6) or PHPP 545 Adv Pharm Pract Exp: Elect II (6)

Courses Taken by all PharmD Students: (10 Credits)

- PHPS 503 Pharmaceutical Calculations (2)
- PHPP 508 Intro to Biostatistics (3)
- PHPP 514 Evidence-Based Medicine (3)
- PHPP 524 Pharmacoeconomics (2)

Healthcare Leadership Certificate

Coordinator: Karen L. Pellegrin, PhD, MBA
Director of Continuing Education and Strategic Planning
Email: karen3@hawaii.edu

Program Description

This certificate program is designed to give PharmD students a basic foundation in business administration, with a concentration in healthcare leadership. Students who complete this program will have a better understanding of the business side of the healthcare industry, particularly in pharmacy practice and the pharmaceutical industry.



Mission

The mission of this certificate program is to produce PharmD graduates who are more competitive for a variety of positions in the job market, particularly those involving pharmacy management, leadership, and innovation.

Student Learning Objectives

1. Describe basic concepts of accounting, financial statements, human resources functions, compensation and incentives, performance management, production and operations, project management, marketing, strategy, organizational culture, corporate social responsibility, and related federal regulations;
2. Design and track variance from a budget
3. Develop, apply, and evaluate simple models for business forecasting
4. Apply the basic knowledge of managerial economics into pricing for profits
5. Analyze a variety of industries and competitive situations within the context of a global market environment.
6. Demonstrate knowledge of healthcare systems, legal and ethical issues in pharmacy, and pharmacoeconomics.
7. Integrate the knowledge from previous courses in the certificate program and demonstrate the appropriate use of this knowledge within an unstructured case.
8. Apply knowledge from previous courses to address a real-world pharmacy leadership issue in an advanced experiential setting.

Program Prerequisite Requirements

- Must have completed P1 (first year) in the PharmD program with a GPA of 3.0 or better
- Must maintain a GPA of 3.0 or better to remain in the certificate program
- Must not be on probation

Requirements (23 Credits)

Students must complete 23 credits, including 14 elective credits

Elective Courses:

- PHPP 558 Business Admin Overview (1)
- PHPP 557 Personal Finance (1)
- PHPP 544 Adv Pharm Pract Exp: Elect I (6) or PHPP 545 Adv Pharm Pract Exp: Elect II (6)
- ECON 430 Quantitative Forecasting (3)
- MGT 490 Strategic Mgt (3)

Courses Taken by all PharmD Students:

- PHPP 519 Health Care Systems (2)
- PHPP 520 Pharmacy Law and Ethics (3)
- PHPP 522 Pharm Practice Mgmt & Mktng (2)
- PHPP 524 Pharmacoeconomics (2)

Rural Health Graduate Certificate (PharmD)

Mission:

This mission of this certificate program is to produce PharmD graduates who are equipped with the knowledge and experience needed to thrive as a pharmacist working in rural settings.

Student learning objectives:

1. Describe basic concepts in rural health science, including measurement, methods, and testing solutions to rural health problems.
2. Analyze rural health issues and make evidence-based recommendations for improvement.
3. Demonstrate knowledge of rural health issues in rural pharmacy practice settings.
4. Apply the knowledge of rural health science to real-world healthcare and community settings.
5. Integrate the knowledge from courses in the certificate program and apply this knowledge to enhance patient care in advanced experiential rotations.
6. Identify and demonstrate ability to implement solutions to rural health problems.

Required Courses (22 Credits):

- PHPP 567 Rural Health Science Intro (2), P2 year
- PHPP 568 Rural Health Science Advanced (2), P3 year
- Review and approval of PHPP 540 Adv Pharm Prac Exp: Ambulatory (6)- PHPP 545 Adv Pharm Prac Exp: Elect II (6) course placement by department.
- Minimum of 18 APPE credits in Experiential Rotations in rural settings (18 Credits)
 - Ambulatory Care, Community Practice, Medicine, Hospital Pharmacy, and/or Electives) in rural settings such as:
 - Hawaii Island
 - Kauai Island
 - Rural areas of Maui County (i.e., Hana, Lanai, Molokai)
 - Other approved rural sites

Ph.D. in Pharmaceutical Sciences

Program Director: Ghee Tan, Ph.D.

Daniel K. Inouye College of Pharmacy (DKICP)

722 S. A'ohoku St.

Hilo, HI 96720

Email: gheetan@hawaii.edu

University of Hawai'i at Hilo

Daniel K. Inouye College of Pharmacy (DKICP)

Office of Student Services (OSS)

Ph.D. Program Admissions

200 W. Kāwili Street

Hilo, HI 96720

Fax: (808) 933-3889

Email: pharmacy@hawaii.edu

Faculty:

- Julie Adrian, D.V.M. Associate Professor
- Shugeng Cao, Ph.D. Associate Professor
- Leng Chee Chang, Ph.D. Associate Professor
- Mahavir Chougule, Ph.D. Associate Professor, Affiliate Faculty
- Linda Connelly, Ph.D. Associate Professor
- Abhijit Date, Ph.D. Assistant Professor
- Daniela Guendisich, Ph.D. Associate Professor
- Aaron Jacobs, Ph.D. Associate Professor
- Susan Jarvi, Ph.D. Professor and Director, Pre-Pharmacy Program
- Tamara Kondratyuk, Ph.D. Assistant Specialist and Laboratory Manager
- Dana-Lynn Ko'omoa-Lange, Ph.D., Associate Professor
- Ingo Ko'omoa-Lange, Ph.D. Instructor



- Russell J. Molyneux, Ph.D. Affiliate Faculty
- Dianqing Sun, Ph.D. Associate Professor
- Ghee Tan, Ph.D. Associate Professor
- Supakit Wongwiwatthananukit, Pharm.D., Ph.D. Professor

Program Description

Utilizing the extraordinary intellectual, biological, physical and cultural diversity of its geographic region as a focus of investigation and study, the University of Hawai'i at Hilo's College of Pharmacy is proud to offer a Ph.D. program in the Pharmaceutical Sciences.

This program, which is the only program of its type in the Pacific region, provides graduate training in the Pharmaceutical Sciences including Medicinal Chemistry, Pharmacology, Pharmaceutics, and Pharmacognosy. It is aimed at students with B.S., M.S., or Pharm.D. degrees, and those currently working in the field. Studies culminate with the award of a Ph.D. in Pharmaceutical Sciences, with an emphasis on natural products discovery and development and their importance in pharmacy and healthcare.

Students will be prepared for senior leadership positions in the pharmaceutical sciences in academia, research, education, government, industry and related fields and become leaders who can identify, research, and solve problems related to the pharmaceutical sciences. The Ph.D. program is designed to foster student development as critical thinkers, team players, self-directed interdisciplinary scholars and communicators.

Mission

The mission of the Ph.D. program in Pharmaceutical Sciences is to train students to be skilled researchers and critical thinkers who will play key leadership roles in furthering the development of the Pharmaceutical Sciences and related fields now and into the future.

Program Goals

- To provide a high-quality graduate program culminating in the award of a Ph.D. in Pharmaceutical Sciences, including the areas of Pharmaceutics, Pharmacognosy, Medicinal Chemistry, and Pharmacology.
- To foster the development of students as critical thinkers, team players, self-directed interdisciplinary scholars, and communicators.
- To prepare students for senior leadership positions in the pharmaceutical sciences in academia, research, education, government, industry, and related fields. These leaders will be able to identify, research, and solve problems related to the pharmaceutical sciences.
- To train students by utilizing the extraordinary intellectual, biological, physical, and cultural assets available on the Island of Hawaii, the State, and the Asia-Pacific region.
- To promote the transfer of cutting-edge technology through developing a community research partnership, process, and protocol for understanding the diversity of natural products originating in Hawaii, the Pacific, and around the world and their applications to healing in a culturally respectful way.

Student Learning Outcomes

At the conclusion of the PhD program a graduate should be able to:

1. Perform scientific research that will advance knowledge in the interdisciplinary field of Pharmaceutical Sciences.

2. Use advanced technological equipment in order to perform quantitative analysis and be able to interpret complex data.
3. Analyze, apply, and present research findings.
4. Prepare, interpret, and critique scientific publications and proposals.
5. Identify which aspects of their individual program may be usefully transferred to some applied research program.
6. Complete the seven stages for a successful PhD in any technical discipline, thereby becoming an independent researcher:
 - Identify a problem/question
 - Form an hypothesis
 - Develop a model
 - Design an experimental strategy to test the hypothesis
 - Execute an experimental plan
 - Interpret the data against the hypothesis
 - Report the results in a dissertation and peer reviewed publications

Admission Requirements

Acceptance is granted at the discretion of the Pharmaceutical Science Ph.D. Admissions Committee based on the criteria below.

1. Successful completion of the Ph.D. in Pharmaceutical Sciences Application process.
2. Each applicant must hold a baccalaureate degree or graduate degree from a regionally accredited U.S. college or university, or its equivalent from a recognized non-U.S. institution of learning
3. Applicants must have a minimum Grade Point Average of 3.0 out of 4.0 or the equivalent in the last 60 semester credits of undergraduate and in all post-baccalaureate work.
4. Applicants are recommended to have successfully completed with a grade "C" or higher: General Biology I and II for Science Majors with Labs, General Chemistry I and II for Science Majors with Labs, Organic Chemistry I and II for Science Majors with Labs, Calculus 1 or Advanced Calculus. Students may have to take additional courses if proficiency cannot be demonstrated.
5. A personal statement of objectives is required which includes applicant's background, professional goals and academic and research interests.
6. Resume.
7. Official Graduate Record Examination (GRE) scores sent directly from ETS.
8. Three Letters of Recommendation using the "Ph.D. Letter of Recommendation Form". The letters should be written by people who can speak to the applicant's educational ability, motivation, and character, and/or leadership experiences. At least one of your letters MUST be written by a Professor of one of the Natural or Physical Sciences. Please allow the Recommenders plenty of time to complete this form, and have them mail the letter directly to the UH Hilo Daniel K. Inouye College of Pharmacy, Office of Student Services, PhD Program Admissions, 200 W. Kawili Street; Hilo, HI 96720-4091.
9. Completed SKYPE or equivalent electronic interview.

Foreign applicants must also submit:

1. Official TOEFL score report unless the degree was conferred by an institution whose language of instruction is English. International students seeking Graduate Assistant positions with any instructional responsibility must demonstrate proficiency in English, defined as a TOEFL score of at least 600 on paper-based or 100 on internet-based test or its equivalent or an IELTS score of 7.0 or its equivalent. [Graduate Student Employment Policy](#).
2. [International Graduate Student Supplemental Information Form](#).



Further information on the details of fulfilling admissions requirements are available from the Ph.D. Program Admissions Office pharmacy@hawaii.edu, and on the [DKICP Graduate Admissions website](#).

Graduation Requirements

1. Successful achievement of the requirements for year one of the student's program.
2. Regardless of any previous graduate experience, a minimum of 24 graduate didactic credit hours must be taken at UH Hilo before the Ph.D. degree can be granted.
3. Completion of all first year graduate courses each with a grade no less than a "B" (3.0) and, thereafter, maintenance of a cumulative grade point average of 3.0 or better.
4. Completion of one seminar each year; a minimum grade of "B" (3.0) should be achieved for this presentation. The Proposal Defense and Dissertation Defense seminars will satisfy the seminar presentation requirement for that particular academic year.
5. No later than the fourth semester of the program, successful completion of a written and/or oral Comprehensive Examination to demonstrate competence in the chosen area(s) of Pharmaceutical Sciences.
6. No later than the fifth semester of the program, completion of an original dissertation research proposal, presentation of a public seminar on the student's research proposal, and successful defense in a comprehensive oral examination (Proposal Defense) on the proposal and any other topics that the Graduate Committee deems necessary. In this examination the student's Graduate Committee will determine if the student is sufficiently prepared in the selected field of study to continue with their dissertation. Once the student passes the Comprehensive Examination and the Proposal Defense, he/she will be eligible to be admitted to Candidacy for the Ph. D. degree.
7. Successful completion of a dissertation, with enrollment in a minimum of 56 credits of dissertation research (PHPS 799V Directed Studies (To Be Arranged) and PHPS 800 Resrch Dissertation-Phrm Sci (1-15)). Upon completion of the dissertation, a final public seminar and oral dissertation defense (Dissertation Defense) will follow.
8. Completion of at least 96 combined credits of graduate courses and dissertation; including PHPS 700-level and PHPS 800-level courses.
9. The publication of one or more first author research manuscripts in peer-reviewed journals.
10. Compliance with UH Hilo rules and regulations for graduation.

Curricula

To successfully complete the PhD degree candidates must complete; year 1 with a minimum grade of B in each graded course (Minimum GPA = 3.0); after the first year, courses must be completed with a cumulative GPA of no less than 3.0; a minimum of 24 graduate level didactic credits and a minimum of 56 credits of research courses (PHPS 799 and PHPS 800); a minimum of 96 credit hours overall (Minimum cumulative GPA = 3.0).

1. PhD Year 1 Fall Courses (minimum 12 credits)

- PHPS 718 Lab Visits & Supervisor Select (1)
- PHPS 749 Overview of Pharm Sciences I (2)
- Area-specific courses (9 credits minimum chosen from among the recommended courses below for a specific area and supplemented with other electives as needed)
 - Cancer Biology Emphasis
 - PHPS 703 Cancer Biology (2)
 - PHPS 710 Lab Animal Care, Mgt & Med I (2)
 - PHPS 751 Biochemistry I - Biomolecules (3)
 - PHPS 735 Cell Cycle Progression (2)
 - Or other appropriate electives to make up a minimum of 9 credits
 - Medicinal Chemistry Emphasis
 - PHPS 704 Com Chem & High Throughput Tec (2)
 - PHPS 709 Inst Meth & Struct Elucidation (2)
 - PHPS 713 Organic Medicinal Chemistry I (2)
 - PHPS 717 Med Chem CNS Drugs & Develop (2)
 - Or other appropriate electives to make up a minimum of 9 credits
 - Pharmacognosy Emphasis
 - PHPS 709 Inst Meth & Struct Elucidation (2)
 - PHPS 723 Pharmacognosy (2)
 - PHPS 751 Biochemistry I - Biomolecules (3)
 - Or other appropriate electives to make up a minimum of 9 credits
 - Pharmaceuticals Emphasis
 - PHPS 709 Inst Meth & Struct Elucidation (2)
 - PHPS 755 Advanced Pharmaceuticals I (3)
 - PHPS 733 Aerosol Physics in Medicine (1)
 - Or other appropriate electives to make up a minimum of 9 credits
 - Pharmacology Emphasis
 - PHPS 703 Cancer Biology (2)
 - PHPS 706 Environmental Toxicology (2)
 - PHPS 721 Neuropsychopharmacology (2)
 - PHPS 724 Pharmacology I (3)
 - PHPS 735 Cell Cycle Progression (2)
 - Or other appropriate electives to make up a minimum of 9 credits

2. PhD Year 1 (Qualifying Year) Spring Courses (minimum 12 credits)

- PHPS 750 Overview of Pharm Sciences II (2)
- PHPS 780 Research Seminar (1)
- PHPS 799 Directed Studies (To Be Arranged)
- Area-specific courses (5 credits minimum chosen from among the recommended courses below for a specific area and supplemented with other electives as needed)
 - Cancer Biology Emphasis
 - PHPS 711 Lab Animal Care, Mgt & Med II (2)
 - PHPS 720 Nat Prod & Cancer Chemoprevent (2)
 - PHPS 729 Receptor Theory & Signal Trans (2)
 - PHPS 752 Biochemistry II - Metabolism (3)
 - PHPS 734 Biotechnology Laboratory (2)



- Or other appropriate electives to make up a minimum of 5 credits
 - Medicinal Chemistry Emphasis
 - PHPS 714 Organic Medicinal Chemistry II (2)
 - PHPS 720 Nat Prod & Cancer Chemoprevent (2)
 - Or other appropriate electives to make up a minimum of 5 credits
 - Pharmacognosy Emphasis
 - PHPS 702 Bio Dev:Prin&Prac in Drug Disc (1)
 - PHPS 720 Nat Prod & Cancer Chemoprevent (2)
 - PHPS 730 Sample Coll, Documnt & Presrv (1)
 - PHPS 752 Biochemistry II - Metabolism (3)
 - Or other appropriate electives to make up a minimum of 5 credits
 - Pharmaceuticals Emphasis
 - PHPS 756 Advanced Pharmaceuticals II (3)
 - Or other appropriate electives to make up a minimum of 5 credits
 - Pharmacology Emphasis
 - PHPS 725 Pharmacology II (3)
 - PHPS 729 Receptor Theory & Signal Trans (2)
 - Or other appropriate electives to make up a minimum of 5 credits
3. **PhD Year 2 Fall Courses (minimum 12 credits)**
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
 - Electives as needed, electives plus PHPS 780 Research Seminar (1) PHPS 799 should total a minimum of 12 credits
 4. **PhD Year 2 Spring Courses (minimum 12 credits)**
 - PHPS 780 Research Seminar (1)
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
 - Electives as needed, electives plus PHPS 799 should total a minimum of 12 credits
 5. **PhD Year 3 Fall Courses (minimum 12 credits)**
 - PHPS 780 Research Seminar (1)
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
 - Electives as needed, electives plus PHPS 780 Research Seminar (1) and PHPS 799 should total a minimum of 12 credits
 6. **PhD Year 3 Spring Courses (minimum 12 credits)**
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
 - Electives as needed, electives plus PHPS 799 should total a minimum of 12 credits
 7. **PhD Year 4 Fall Courses (minimum 12 credits)**
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 7 credits)
 - Electives as needed, electives plus PHPS 799 should total a minimum of 12 credits
 8. **PhD Year 4 Spring Courses (minimum 12 credits)**
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 6 credits)
 - For final semester in program: PHPS 800 Resrch Dissertation-Phrm Sci (1-15) (1 credit required)
 - Electives as needed, electives plus PHPS 799 and PHPS 800 should total a minimum of 12 credits
 9. **PhD Year 5 and beyond are taken on an as required basis. (minimum 12 credits)**
 - PHPS 799 Directed Studies (To Be Arranged) (minimum 6 credits)
 - For final semester in program: PHPS 800 Resrch Dissertation-Phrm Sci (1-15) (1 credit required)
 - Electives as needed, electives plus PHPS 799 and PHPS 800

should total a minimum of 12 credits

Electives-Listed Alphabetically

Alpha/Number	Course Title	Credits
PHPS 701	Apoptosis and Angiogenesis in Disease Processes and Drug Development	1
PHPS 702	Bioassay Development: Principles & Practices in Drug Discovery	3
PHPS 703	Cancer Biology	2
PHPS 704	Combinatorial Chemistry and High Throughput Technologies in Drug Discovery	2
PHPS 705	Designing Clinical Research	3
PHPS 706	Environmental Toxicology	2
PHPS 707	Genetics in Medicine	2
PHPS 708	Isolation Methods for Natural Product Discovery	2
PHPS 709	Instrumental Methods and Structure Elucidation of Mainly Natural Products	2
PHPS 710	Laboratory Animal Care, Management and Medicine I	2
PHPS 711	Laboratory Animal Care, Management and Medicine II	2
PHPS 712	Medical Cell Biology	2
PHPS 713	Medicinal Chemistry I	2
PHPS 714	Medicinal Chemistry II	2
PHPS 715	Medicinal Chemistry III	2
PHPS 716	Medicinal Chemistry IV	2
PHPS 717	Medicinal Chemistry of CNS Drugs and Development of <i>in vivo</i> CNS Tracers	2
PHPS 719	Molecular Biology Techniques and Applications for Healthcare Professionals	2
PHPS 720	Natural Products and Cancer Chemoprevention	2
PHPS 721	Neuropsychopharmacology	2
PHPS 722	Pharmaceutical Marketing	2
PHPS 723	Pharmacognosy I	2
PHPS 724	Pharmacology I	3
PHPS 725	Pharmacology II	3
PHPS 726	Pharmacology III	3
PHPS 727	Pharmacology IV	3
PHPS 728	Phytochemistry of Terrestrial Plants	2
PHPS 729	Receptor Theory and Signal Transduction	2
PHPS 730	Sample Collection, Documentation and Preservation	1
PHPS 731	Toxicants and Toxicity	3
PHPS 732	Toxic Plant Natural Products and Their Therapeutic Potential	2
PHPS 733	Advanced Aerosol Physics in Medicine: Inhaled Drug Therapy	1
PHPS 734	Biotechnology Laboratory	2
PHPS 735	Cell Cycle Progression and Apoptosis, Methodological Approaches	2



M.S. in Tropical Conservation Biology and Environmental Science

Program Chair: Becky Ostertag, Ph.D.,

Email: ostertag@hawaii.edu

Assistant Program Chair: Patrick Hart, Ph.D.,

Email: pjhart@hawaii.edu

Natural Sciences Division Office:

Office: Life Sciences, Room 2

Tel: (808) 932-7506/7507

Program Description

The primary purpose of the Master of Science in Tropical Conservation Biology and Environmental Science is to provide graduate training in conservation biology and environmental science to those with baccalaureate degrees and those currently working in the field. The program will utilize the extraordinary biological, physical, and cultural complexity of the island of Hawai'i as a focus of investigation and study. The program will prepare students for technical positions and for entry into Ph.D. programs in related fields.

Mission

- Foster knowledge of current trends and issues in conservation biology and environmental sciences including basic and applied research and natural resource problems;
- Provide participants with experiences in conceptual and technical research in ecology, evolutionary genetics, geographic analysis, environmental monitoring and assessment in marine and terrestrial environments;
- Promote research and scholarly activities that will enable participants to enter the scientific research community.

Student Learning Outcomes

Graduates of the program will be able to:

- Perform scientific research in the interdisciplinary field of conservation biology and environmental science;
- Develop skills in natural resource and protected area management;
- Use advanced technological equipment, perform quantitative analysis, and interpret complex data;
- Present scientific results in oral and written publications; and
- Interpret and critique professional scientific literature.

Admission Requirements

1. A baccalaureate degree from a regionally-accredited U.S. institution or from a nationally-recognized foreign institution.
2. Communicate with a potential advisor(s) from the list of participating faculty with similar research interests. In the personal statement, list advisor(s) from the TCBES faculty who agrees to sponsor the application and to serve as primary advisor upon acceptance to the program.
3. A minimum combined verbal and quantitative score of 290 on the General Graduate Record Exam (GRE).
4. Three letters of recommendation submitted by references who have observed or supervised the applicant's performance and are able to comment on the quality of the applicant's academic achievement, ability to pursue graduate study, and general character.

5. Grade point average of 3.0 (on a scale where A = 4.0) or the equivalent in the last four semesters of approximately 60 semester credits of undergraduate work and/or in all post-baccalaureate work.

Note: In special circumstances acceptance may be granted at the discretion of the selection committee for those students who meet some, but not all, the above requirements.

Note: Recommended Baccalaureate Courses for Admission to the Program:

- 2 years of chemistry
- 1 year of calculus
- 1 course in geographic information or remote sensing
- 1 course in statistics
- 2 courses in life sciences
- 2 additional courses in physical sciences

Transfer of Credits

Requests for transfer of graduate credits must be made during the first semester in which the student is enrolled in the program. Only credit hours with a grade of B or better from accredited universities are transferable. Transfer credit hours must have been completed within five years preceding the date upon which the advanced degree is to be conferred by UH Hilo. The TCBES program will decide which credits will be transferred.

International Credentials

A statement describing minimum academic qualifications expected of international applicants may be obtained from the Graduate Office of Admissions. These qualifications must be completed prior to enrollment.

M.S. TCBES Check List

(Reminder: Priority application deadline is December 1)

- Completed UH Hilo Graduate application form
- Personal statement of objectives
- Application fee
- Official transcripts from all colleges or universities (must be received directly from the institution, or in a sealed envelope if submitted with your application)
- General Test, Graduate Record Exam
- Three Letters of Recommendation received at UH Hilo by December 1
- Official TOEFL score report, if required
- Verification of financial status (for international applicants) (see [Forms](#))

Frequently Asked Questions

1. **Do I need to find a faculty sponsor?**
Yes, you are required to contact individual faculty members whose research interest are similar to your own and who agree to sponsor your application to the program. It is recommended that you begin faculty contact well before the application deadline. Faculty sponsorship is required for program acceptance.
2. **How do I find a faculty sponsor?**
TCBES Faculty information can be found within this page and on the [TCBES Website](#)
3. **How long does it take to complete the program?**
The program is designed to be completed in 3-4 semesters, with



additional time needed for writing the thesis or completing the internship.

4. **What are the entrance requirements?**
See Check List and Admission Requirements sections.
5. **Do I have to take the GRE?**
Yes. Applicants are required to submit General GRE scores to UH Hilo. (UH Hilo code: 4869)
6. **Can I transfer credits?**
Yes, up to 6 credits, subject to program approval.
7. **When will the program start?**
Classes for new students begin in the fall of each year.
8. **How much will it cost to live in Hilo?**
In-state students should budget approximately \$25,000 per year for tuition, books, housing, food, and personal expenses; out-of-state students should budget about \$30,000.
9. **Is financial aid available?**
Graduate assistantship positions may be available (Contact program chair, Dr. Ostertag: ostertag@hawaii.edu). You may also contact faculty and participating agencies for financial assistance. Students interested in assistantship positions must have submitted the FAFSA; students who meet the deadline for financial aid will have priority for assistantship positions and other aid. Contact the UH-Hilo [Financial Aid Office](#) for more information.
10. **Do I need to write a Master's Thesis?**
Plan A requires course work and a thesis of original research. Plan B requires course work, an internship, and research papers.

Program Curriculum

Total Credits Required:

- Plan A = 30 credits
- Plan B = 36 credits

Core Courses (8) credits required for all M.S. TCBES students:

- CBES 600 Conservatn Biol & Environ Sci (3)
- CBES 601 CBES Field & Laboratory Method (3)
- CBES 602 Research Seminar in TCBES (1)
- CBES 603 Natural Resource Mgt Seminar (1)

Elective Courses ¹:

- Plan A: 16 elective credits of 600-level CBES courses.
- Plan B: 25 elective credits of 600-level CBES courses.

¹ A maximum of 6 credits of 400-level courses may count toward these elective credits.

- CBES 609 Theory/Apps Landscape Ecology (3)
- CBES 610 Environmental Chem Analysis (3)
- CBES 615 Global Environmental Change (3)
- CBES 620 Rrsch Techniq Molecular C Biol (3)
- CBES 630 Nearshore Monitoring & Analsi (3)
- CBES 633 Biodiversity (3)
- CBES 635 Physical Environment of Ecosys (3)
- CBES 640 Adv Remote Sensing/Digital Ima (3)
- CBES 645 Apply Social Sci to Marine/Coa (3)
- CBES 650 Oceanographic Monitoring & Ana (3)
- CBES 665 Environmental Toxicology (3)
- CBES 660 Molecular Ecology (3)
- CBES 670 Geog Info Sys & Visualization (3)
- CBES 675 Conservation Genetics (3)
- CBES 677 Quantitative Ecology (3)
- CBES 680 Adv Stats Analysis & Rsrch Des (3)

- CBES 681 Spatial Data Analysis/Modeling (3)
- CBES 685 Behavioral Ecol & Evol Analyse (3)

Other Courses:

- CBES 690 Internship (3)
- CBES 694 Special Topics in Subject Matter (To Be Arranged)
- CBES 699 Directed Studies (To Be Arranged)
- CBES 700 Thesis Research (1-6)

Faculty

- Jason Adolf, Ph.D., Marine Science
- Norman Arancon, Ph.D., Agriculture
- Jonathan Awaya, Ph.D., Biology
- James Beets, Ph.D., Marine Science
- Kathryn Besio, Ph.D., Anthropology
- Leng Chee Chang, Ph.D., Pharmacy
- Steven Colbert, Ph.D., Marine Science
- Marta deMaintenon, Ph.D., Marine Science
- Jesse Eiben, Ph.D., Entomology
- Armando García-Ortega, Fisheries and Aquaculture
- Joseph Genz, Ph.D., Anthropology
- Mazen Hamad, Ph.D., Chemistry
- Patrick Hart, Ph.D., Biology
- Maria Haws, Ph.D., Aquaculture
- Kevin Hopkins, Ph.D., Aquaculture
- Susan Jarvi, Ph.D., Biology
- Marina Karides, Ph.D., Sociology
- Matthew Knope, Ph.D., Biology
- Yiqing Li, Ph.D., Forestry
- Chris Lu, Ph.D., Animal Science
- Steven Lundblad, Ph.D., Geology
- Sarah Marusek, Ph.D., Political Science
- Bruce Mathews, Ph.D., Soil Science & Agronomy
- William Mautz, Ph.D., Biology
- Karla McDermid Smith, Ph.D., Marine Science
- Jon-Pierre Michaud, Ph. D., Chemistry
- Jené Michaud, Ph.D., Geology
- Peter Mills, Ph.D., Anthropology
- Cedric Muir, Ph.D., Biology
- Stan Nakanishi, Ph.D., Biology
- Rebecca Ostertag, Ph.D., Biology
- Adam Pack, Ph.D., Psychology & Biology
- Ryan Perroy, Ph.D., Geography
- Jonathan Price, Ph.D., Geography
- Michael Shintaku, Ph.D., Plant Pathology
- Shihwu Sung, Ph.D., Applied Engineering
- Jolene Sutton, Ph.D., Biology
- Misaki Takabayashi, Ph.D., Marine Science
- Li Tao, Ph.D., Biology
- Jason Turner, Ph.D., Marine Science
- Tracy Wiegner, Ph.D., Marine Science

Certified Faculty

These faculty serve on graduate committees, occasionally teach graduate courses, seminars or workshops, and can co-chair graduate committees with a UH Hilo faculty member.

- Lisa Adams, M.S. Biology Laboratory Coordinator, Hawai'i Community College
- Carter Atkinson, Ph.D., Project Leader, USGS Pacific Island Ecosystems Research Center



- George Balazas, M.S. Zoologist and leader, Marine Turtle Research Program
- Paul Banko, Ph.D., Project Leader, USGS Pacific Island Ecosystems Research Center
- Lawrence Basch, Ph.D., Marine Ecology and Science Advisor, National Park Service
- Chad Kālepa Baybayan Associate Director, 'Imiloa Astronomy Center of Hawai'i
- Francis L. Benevides Jr., Ph.D., Manager/Engineer/Technician, Federal Aviation Administration
- Charles Birkeland, Ph.D. Unit Leader Hawai'i, Cooperative Fishery Research Unit
- Barbara Block, Ph.D. Professor, Department of Biological Sciences, Stanford University
- Frank Bonaccorso, Ph.D., Research Ecologist, USGS Pacific Island Ecosystems Research Center
- Brian Bowen, Ph.D., Research Professor, HIMB UH Mānoa,
- Holly Bowers, PhD, Research Specialist, University of Maryland Biotechnology Institutes,
- Eric Brown, Ph.D., Marine Ecologist, Kalaupapa National Historical Park
- John Burns, M.S., Marine Ecologist, UH Mānoa
- Frank Chapman, Ph.D., Associate Professor, University of Florida
- Matthew J. Church, Ph.D. Assistant Professor, Oceanography Dept., UH Mānoa
- David Clausnitzer, Ph.D. Pacific Islands Area Forest Ecologist, USDA-NRCS,
- Susan Cordell, Ph.D., Research Ecologist, USDA Forest Service
- Carla D'Antonio, Ph.D., Professor, Ecology, Evolution and Marine Biology, UC Santa Barbara
- Todd Dawson, Ph.D., Professor, Department of Integrative Biology, UC Berkeley
- Julie Denslow, Ph.D., Research Ecologist, USDA Forest Service
- Bruce Dudley, Ph.D. Post-doctoral Researcher, University of Hawai'i at Hilo
- Chris Farmer, Ph.D., USGS Pacific Island Ecosystems Research
- Linda Shea Flanders, Executive Director, Cape Kumukahi
- Peter Follett, Ph.D., Research Entomologist, USDA, Pacific Basin Agricultural Research Center
- David Foote, Ph.D., Research Ecologist, USGS, Pacific Island Ecosystems Research Center,
- James Boyd Friday, Ph.D. Extension Forester, UH Mānoa
- Alan Marc Friedlander, Ph.D., Hawai'i Cooperative Fishery Research Unit,
- Ruth Gates, Ph.D., Assistant Research Professor, HIMB UH Mānoa
- Grant Gerrish, Ph.D., Instructor, Biology Dept., UH Hilo
- Scott Geib, Ph.D. Research Scientist, USDA Agricultural Research Services Hilo
- Kenneth Gordon Gerow, Ph.D. Professor, Statistics Dept., University of Wyoming
- Christian Giardina, Ph.D., Research Ecologist, USDA Forest Service
- William Gilmartin, M.S. , Director of Research, Hawai'i Wildlife Fund
- Charles Greene, Ph.D. Professor, Dept. of Earth and Atmospheric Science, Cornell
- Arnold Hara, Ph.D., Professor, UH Mānoa CTAR - Beaumont Center
- David Helweg, Ph.D., Deputy Director, USGS Pacific Island Ecosystems Research Center
- Steven Hess, Ph.D. Research Wildlife Biologist, USGS-BRD, Hawai'i Volcanoes National Park
- Tara Holinski, M.S. Analytical Laboratory Manager, UH Hilo
- Darcy Hu, Ph.D., Ecologist and Science Advisor, US National Park Service,
- Flint Hughes, Ph.D., Research Ecologist, USDA Forest Service
- Nicole Hynson, Ph.D., Assistant Professor, Botany, UH Mānoa
- David Itano, M.S. Research Associate, UH Mānoa
- James Jacobi, Ph.D., Research Botanist, USGS Pacific Island Ecosystems Research Center
- Jack Jeffery, Senior Wildlife Biologist, US Fish and Wildlife Service,
- Tracy Johnson, Ph.D., Research Entomologist, USDA Forest Service,
- Les Kaufman, Ph.D., Professor, Biology Dept., Marine Program & Center for Ecology and Conservation Biology, Boston University
- Lisa Keith, Ph.D., Research Plant Pathologist Biology, USDAPacific Basin Agricultural Research Center
- Randall Kosaki, Ph.D. Deputy Superintendent, Pahahanaumokuakea Marine National Monument
- Stacy Kubis, M.S. Marine Turtle Research Biologist, NOAA - JIMAR
- Dennis Lapointe, Ph.D., Ecologist, USGS Pacific Island Ecosystems Research Center
- Harilaos Lessios, Ph.D., Staff Biologist, Smithsonian Tropical Research Institute
- Gregg Levine DVM, Veterinarian, Dolphin Quest Hawai'i, Waikoloa, Hawai'i
- Rhonda Loh, Ph.D., Hawai'i Volcanoes National Park Service
- Fred Mackenzie, Ph.D., Professor Emeritus, Department of Oceanography, UH Mānoa
- Richard MacKenzie, Ph.D., Research Ecologist, USDA Forest Service
- Karl Magnacca, Ph.D. Post-doctoral Researcher, UH Hilo
- Nicholas Manoukis, Ph.D. Research Biologist, USDA Agricultural Research Services Hilo
- Colby McNaughton, M.S. Field Experience Coordinator, Education Dept., UH Hilo
- Lisa Muehlstein, Ph.D., UH Hilo Biology and Marine Science Department
- Kate Nishijima, M.S. Plant Pathologist, USDA
- Robert Nishimoto, Ph.D., Aquatic Biologist, Division of Aquatic Resources, DLNR
- Ann Kaleilokelani Nu'uhiwa, Kamehameha Schools-Keauhou/Kahalu'u Educational Group
- Eben Paxton, Ph.D., Avian Research Ecologists, USGS Pacific Island Ecosystems Research Center
- Kennedy Paynter, Jr., Ph.D., Associate Professor, Chesapeake Biological Laboratory, University of Maryland
- Brian Perry, Ph.D., Assistant Professor, Biology Department, California State East Bay
- Sheldon Plentovich, Ph.D. Coastal Program Coordinator, Pacific Islands Fish and Wildlife Office
- Beth Polidoro, Ph.D. Senior Research Associate and Program Officer, IYCN Global Marine Species Programme
- William Pitt, Ph.D., Field Station Leader USDA, National Wildlife Research Center
- Thane Pratt, Ph.D., Project Leader, USGS Pacific Island Ecosystems Research Center
- Richard Pyle, Ph.D., Associate Zoologist, Database Coordinator, Bishop Museum
- Richard Pyle, Ph.D., Associate Zoologist, Database Coordinator, Bishop Museum
- Lora Reeve, M.S., J.D., Consultant
- Michelle Reynolds, Ph.D., Project Leader USGS-Pacific Island Ecosystems Research Center
- Robert Robichaux, Ph.D. Professor, Ecology and Evolutionary Biology, University of Arizona
- Mike Robinson, M.S. Property Management Agent, Hawaiian Homelands
- David Schofield, M.S. Marine Mammal Response Network Coordinator, NOAA
- Craig Severance, Ph.D., Retired UH Hilo Faculty in Anthropology and TCBS
- Kerry Shaw, Ph.D. Professor, Neurobiology and Behavior, Cornell



University

- Laura Shiels, M.S. Botony Department, UH Mānoa
- David Shively, Ph.D., Assistant Professor of Geography, University of Montana,
- Robert P. Smith, M.S. Fish and Wildlife Service, Retired
- Richard Switzer, M.S. Associate Director, Applied Animal Ecology, San Diego Zoo Institute for Conservation Research
- Robert Toonen, Ph.D., Assistant Research Professor, HIMB UH Mānoa
- Jesse Trushenski, Ph.D., Associate Professor, Center For Fisheries, Aquaculture and Aquatic Sciences, Southern, Illinois University
- William Walsh, Ph.D., Division of Aquatic Resources, Hawai'i Department of Land and Natural Resources (DLNR)
- Laura Warman, Ph.D., USDA Forest Service, Institute of Pacific Island Forestry
- Debbie Weeks, Ph.D., Chemist
- Virginia Weis, Ph.D. Professor, Zoology Department, Oregon State University
- Sharon Ziegler-Chong, M.S. Associate Director, PACRC; Coordinator, Hawai'i Cooperative Studies Unit

- through another subject heading)
9. (if applicable) [General Education](#) Attributes

Special notations used for credits are as follows:

- (1-3), for example = the number of semester hours, in this example, may be 1, 2, or 3, as determined by the instructor at the time of offering.
- (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).
- "99" courses are Research and Directed Studies Courses.

Graduate Courses

- Education and Teaching:
 - [Education \(ED\) Post-Baccalaureate Courses](#)
- Heritage Management:
 - [Anthropology \(ANTH\) Post-Baccalaureate Courses](#)
- Ka Haka 'Ula O Ke'elikōlani:
 - [Hawaiian Language \(HAW\) Post-Baccalaureate Courses](#)
 - [Hawaiian Studies \(HWST\) Post-Baccalaureate Courses](#)
 - [Ke'elikōlani Education \(KED\) Post-Baccalaureate Courses](#)
 - [Ke'elikōlani Indigenous Language \(KLAN\) Post-Baccalaureate Courses](#)
 - [Ke'elikōlani Indigenous Studies \(KIND\) Post-Baccalaureate Courses](#)
 - [Ke'elikōlani Linguistics \(KLIN\) Post-Baccalaureate Courses](#)
- Nursing:
 - [Nursing \(NURS\) Post-Baccalaureate Courses](#)
- Pharmacy:
 - [Pharmacy Practice \(PHPP\) Post-Baccalaureate Courses](#)
 - [Pharmaceutical Science \(PHPS\) Post-Baccalaureate Courses](#)
- Psychology:
 - [Psychology \(PSY\) Post-Baccalaureate Courses](#)
- Tropical Conservation Biology & Environmental Science:
 - [Tropical Conservation Biology & Environmental Science \(CBES\) Post-Baccalaureate Courses](#)

Additional Courses

Also see the list of [undergraduate courses](#).

Anthropology (ANTH) Graduate Courses

College of Arts and Sciences (CAS)

ANTH 500 Masters Plan Studies (1) Used for continuous enrollment purposes. Must be taken as CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

ANTH 600 Thesis Design, Method, Theory (3) Seminar on the mechanics of completing a thesis. Theoretical and applied frameworks of heritage management, essential components of a theoretically founded and searchable research questions, community goals, standards for writing a thesis.

ANTH 601 Ethics of Heritage Management (3) Ethical issues raised by archaeological research, data curation and preservation, and public visibility. Global review of laws and ethical codes related to the practice of heritage management as an academic discipline, colonialism and nationalism, looting and the art market, material culture, public engagement and community based research, identity and the world system, and issues of group representation in popular media.

ANTH 602 Historic Preservation Laws (3) Paired with ANTH 389 (Cultural Resource Management). Major issues of Heritage Management legislation and the structure of federal and state programs. We'll review some of recent court cases in the U.S. and Pacific Nations. Civil suits over historic preservation. Graduate students will work with ANTH 389 students in the design and implementation of their community based-research.

ANTH 603 Qualitative & Quant. Methods (3) Overview of methods used to interpret anthropological fieldwork. Discussion of research design, sampling, scales of analysis, differences between qualitative analysis and quantitative analysis.

ANTH 611 Cultural Impact Assessments (3) Introduction to applied

How to read the course descriptions

Courses are described using the following format:

①CRS ②NUM③Title④(cr.)⑤(contact hrs) ⑥Full course description.
⑦Pre: pre-requisites. ⑧(Same as X-List) ⑨(Attributes: ATTR)

1. Course subject
2. Course number
3. Course title
4. Number of semester hours (credits)
5. Contact hours type(s) if non-lecture
6. Full description of the course.
7. (if applicable) Prerequisites, co-requisites, recommended preparation or other requirements
8. (if applicable) Cross-listed courses (equivalent courses offered



ethnographic studies in Hawaii, including cultural impact assessments, ethnohistoric studies, regulations, ethics and politics of community-based consultation and research; research in historic-era documents, ethnographies, maps, previous archaeological studies, and texts written in the Hawaiian language.

ANTH 612 Indigenous Museum Studies (3) Pared with the undergraduate course ANTH 470 (Museology). Community museum development with a focus on indigenous perspectives of heritage and stewardship. Grant-writing, collections documentation and management, exhibit planning, and public engagement. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 613 Human Paleoecology (3) Methods and theories pertaining to understanding ancient human interactions with ecosystems, including effects of human colonization on island environments, species introductions and extinctions, geomorphological change and studies of other anthropogenic processes. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 614 Submerged Cultural Resources (3) Overview of conservation and management issues related to submerged cultural resources with specific attention given to the Abandoned Shipwrecks Act, Admiralty Law, and other regulatory factors pertaining to the management of submerged resources in the Hawaiian Archipelago and the Pacific in general. An overview of methodological issues and ongoing submerged resource issues are discussed. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 623 Archaeology of Oceania (3) Archaeological overview of cultures of the Pacific both before and after Western contact with an emphasis on research being conducted as a result of regional heritage management programs. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 624 Archaeology of Hawaii (3) History, theory, and practice of archaeology in the Hawaiian Islands. Development of the discipline, including ethics and politics, and contemporary Kanaka Maoli concerns. Theoretical topics include the emergence of social complexity, political economy, monumentality, craft production, agriculture and gender relations, and archaeoastronomy. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 625 Pacific Heritage Management (3) Overview to indigenous heritage management in the Pacific. International conventions and world heritage sites, national historic preservation law, community-based cultural revival projects, and collaborative research and preservation. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 631 Oral History Research (3) Ethics of applied ethnographic and participatory research, interview protocols, methods of listening, observing and recording, and approaches to interpretive analysis. Methods of interviewing and recording, including the analysis of recorded transcripts while addressing the broader issues that surround oral history and applied ethnographic research, including the epistemological underpinnings of qualitative methods. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 632 Paleobotanical Methods (3) The identification and analysis of plant remains, particularly in relationship to paleoethnobotany in the Pacific Islands. Palynology, phytolith analysis, starch grain identification, wood charcoal identification. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 633 Material Conservation (3) Conservation issues that affect the long-term curation of cultural material. Preservation methods related to paper, textiles, bark cloth, waterlogged objects, ferrous metals, and an assortment of other materials. Special emphasis is placed on working

with, and providing stewardship for indigenous cultural materials. Pre: ANTH 600, ANTH 601, ANTH 602, ANTH 612.

ANTH 634 Lithic Analysis (3) Analytical methods applied to stone artifacts (lithics) from cultural sites and museum collections. History of lithic analyses in archaeology; current analytical techniques; tool production technologies; use-wear. Course content is intended to be applied to thesis projects; students work with undergraduates in ANTH 484 (stone tools analysis). Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 635 Human Osteology (3) Analytical methods used in physical and biological anthropology. Practical skills related to physical anthropology in the context of heritage management. Emphasis on ethically grounded research in the context of indigenous heritage. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH 682 Archaeological Field Methods (3-5) (lecture/lab) Archaeological methods including research design mapping and excavation, and laboratory methods. Normally taught as a summer session course. Credit varies depending on length of field projects (4-6 weeks, 8hrs./day). Pre: ANTH 110; ANTH 600, ANTH 601, ANTH 602.

ANTH 690 Heritage Management Internship (3) (a) Archaeology; (b) Museum Studies; (c) Burials Program; (d) Cultural Impact Assessments. Placement and experience in public, private, and/or government agencies involved in heritage management plus completion of related research projects. Pre: ANTH 600, ANTH 601, ANTH 602. May be repeated for credit.

ANTH 700 Thesis Research (1-6) Supervised research, data analyses, literature review, and writing up of an original empirical study designed to develop and demonstrate the ability to do research and competence in scholarly exposition. Students are expected to work on their thesis under the supervision of their faculty and have their work reviewed by their thesis committee. Pre: ANTH 600, ANTH 601, ANTH 602.

ANTH x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ANTH x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [ANTH undergraduate-level courses](#).

Psychology (PSY) Graduate Courses for the Master of Arts in Counseling Psychology

College of Arts and Sciences (CAS)

PSY 500 Master's Plan Studies (1) Used for continuous enrollment purposes. Must be taken as CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

PSY 601 Applied Multivariate Statistic (4) (other) Advanced statistical techniques used in psychological research and assessment. Strategies of multivariate data screening, transformation, analysis, and



interpretation. Computerized statistical packages designed for multivariate analyses.

PSY 602 Research Meth & Prgm Evaluatn (3) Basic research methodology including quantitative, qualitative, action research, and context-based research. Theoretical knowledge and practical experience in program design and evaluation. Strong emphasis will be given to the importance of research and program evaluation and the opportunities and difficulties encountered when conducting these in the counseling profession. Pre: PSY 601.

PSY 603 Psychological Assessment (4) Principles of psychological assessment. Historical perspective on psychological assessment. Assessment methods. Scales used in psychological assessment: assessment of personality, abilities, achievement, interests, and values. Assessment of environment. Quality of assessment. Assessment design and implementation. Interpretation of the assessment results. Cross-cultural aspects of assessment. Legal and ethical issues. Hands-on training to effectively utilize various assessment tools and write comprehensive assessment reports. Pre: PSY 601.

PSY 604 Profssnl Identity, Ethics (3) Ethical issues in counseling and psychological research. Ethical decision making, confidentiality, and ethical obligations. Research ethics and psychologists in the legal system. Ethical standards and guidelines.

PSY 611 Lifespan Human Development (3) Psychological, social, and physical development over the life span. Interaction among genetic make-up, human activity, and context in the process of development. Stages and mechanisms of development. Normative development and deviations from the norm. Theories of development. Research on developmental processes in various domains. Cross-cultural perspectives on human development. Current research issues.

PSY 612 Career Development (3) Work and work-related behavior over the life span. Relationships between life style and career development. Theories of vocational development. Career development of women and minorities. Occupational information and decision making. Impact of changing technology and job market. Application to career counseling with diverse populations.

PSY 613 Psychopathology over Lifespan (3) Abnormal development across the lifespan. DSM classification of disorders and methods of appraisal. Etiology, diagnosis and treatment of child, adult, and geriatric disorders.

PSY 614 Family System (3) Family as an open system. Family structure, processes, and context. Family dynamics. Interaction among psychological, social, economic, and biological aspects of family functioning. Reciprocal relationships in the family. Interactions between families and their contexts. Cross-cultural differences in family organization and functioning. Problems in the family and ways of coping.

PSY 620 Counseling Theories (3) A pre-practicum course designed to help students gain an in-depth understanding of various counseling theories. Through readings, discussions, in-class exercises and homework assignments, students will learn the theories.

PSY 621 Counseling Theory and Skills (3) Theories and techniques of counseling, including processes, applications and outcomes.

PSY 622 Group Work & Counseling (4) (lecture/lab) Group purpose, type, development, dynamics; leadership and diversity; group work and counseling theories, methods and skills; evaluation of group work and counseling; application of group work and counseling in a family, school

and workplace settings. Students participate in an experiential learning group over the course of the semester.

PSY 623 Social & Cultural Foundations (3) Interaction between society and the individual. Socio-economic status, ethnicity and culture as determinants of behavior. Characteristics of multicultural and diverse societies and their effects on individual and group behavior.

PSY 624 Counseling Skills (3) A pre-practicum course designed to help students develop effective counseling skills. Through readings, discussions, in-class exercises and homework assignments, students will learn therapeutic skills.

PSY 640 Practicum (6) (other) Supervised experience in a counseling setting, including 100 hours of supervised client contact. Repeatable if different field placement. Pre: PSY 602, 603 and consent of instructor.

PSY 641 Schl Behavr, Adjustmt, Prblms (3) School adjustment in children at all school levels. Factors contributing to academic success and effective social interaction. At-risk children. Coping processes. School adjustment among culturally diverse children and children with special needs. The role of school, family, and community in the child's academic performance and school behavior. Prevention and intervention strategies.

PSY 642 Educatnl & Vocatnl Assessment (3) Principles and goals of educational and vocational assessment and counseling applications. Assessment settings, populations, and procedures. Educational assessment methods. Vocational assessment methods. Interpretation and use of the assessment results. Cross-cultural, social, legal, and ethical issues. Pre: PSY 601, 603.

PSY 643 Schl & Career Guidance & Consu (3) History, principles, and goals of guidance and consultation in educational and work settings. Academic and career guidance. Individual and group guidance. Problem-specific, cultural, and developmental approaches to guidance and consultation. Guidance settings, populations, and procedures. School guidance and K-12 curriculum. Career services. Computerized guidance systems. Social, legal, and ethical issues. Pre: PSY 612, 641, or consent of the instructor.

PSY 651 Theories Of Family Counseling (3) Theoretical approaches used by systemic family therapists to assess and treat family problems.

PSY 653 Treating Families in Crisis (3) Historical roots of family stress theory and basic theoretical approaches used by family therapists to assess and treat family stress and its symptoms.

PSY 654 Gender & Cultur Issues in Fam (3) Gender and cultural issues in the family system; historical aspects of gender; gender systems; gender issues related to marriage and family therapy; development of culture; cultural similarities and differences in human development; multi-cultural and multiracial families.

PSY 655 Systemic Sex Therapy (3) Human sexuality from the systems perspective. Common sexual attitudes and behavior problems. Analysis and intervention with sexual dysfunctions. Sex therapy with diverse populations of clients.

PSY 656 Child Maltreatment (3) An overview of child maltreatment, including abuse and neglect. Topics include the incidence and prevalence of child maltreatment; scientific theories and findings about the causes and consequences of maltreatment; forensic and clinical assessment; mandated reporting requirements; other legal issues; and psychosocial interventions for maltreated children and their families.



PSY 657 Psychopharmacology (3) This course will offer a discussion of psychopathology from a biological perspective including the neurochemical, neuroanatomical, and genetic causes of psychological disease. Emphasis will be placed on the pharmacotherapeutic treatment of psychopathology. Indications, contraindications, effects, and side effects of commonly prescribed psychopharmacological medications will be discussed.

PSY 659 Internship (9) (other) Supervised clinical experience in community practice counseling settings, including 200 hours of supervised client contact. Pre: PSY 640 and instructor's consent. (Attributes: ALEX)

PSY 693 Cog Behavior Therapy Adult (3) No prerequisites, corequisites, crosslisting, special grading options. Not repeatable for credit. History, theory, research, and practice of Cognitive Behavior Therapy applied to adults mental disorders and symptoms. Theory and Treatment applications of Cognitive Behavior Therapy for anxiety and mood disorders, stress disorders, couples issues, substance abuse, and personality disorders. Discussions and Practice of the third wave behavior therapy including Acceptance and Commitment Therapy and Mindfulness Based Stress Reduction.

PSY 695 CBT for Children and Families (3) This is an advanced skills course on the application of cognitive and behavioral theory to treatment of child and adolescent psychological disorders. This course will briefly cover the theoretical and empirical foundation for cognitive and behavioral approaches and the use of empirical data in treatment selection and measuring outcomes. The majority of the course will cover the practical application of specific cognitive and behavioral techniques for children and adolescents and their families. Pre: PSY 624 or instructor permission.

PSY 700 Thesis Research (1-6) Supervised research, data analyses, literature review, and writing up of an original empirical study designed to develop and demonstrate the ability to do research and competence in scholarly exposition. Students are expected to work on their thesis under the supervision of their faculty and have their work reviewed by their thesis committee.

PSY x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PSY x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [PSY undergraduate-level courses](#).

Education (ED) Graduate Courses

College of Arts and Sciences (CAS)

*ED 500 Master's Plan Studies (1) (other)** Used for continuous enrollment purposes. Must be taken as CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

ED 600 Ed Of Ethnic Groups in Hawaii (3) Teacher leader focused course. Survey of social- psychological learning characteristics, heritage, identity problems of Hawai'i ethnic groups, study of prejudice and inter-ethnic hostilities as related to education and teaching. Includes improving outreach and collaboration with families and community.

ED 602 Technology in Education (3) Teacher leader focused course. Selection, evaluation and utilization of instructional materials for systematic achievement of curriculum goals; investigation of innovative technological advances for use in teaching and training. consent of instructor. Promoting/facilitating improvements in learning for teachers and students. Pre: acceptance into the M.Ed. program or

ED 608A Action Research I (3) Systematic study of the purposes of educational research, evaluation and use of research, and introduction of research design principles with emphasis on classroom applications. Pre: acceptance into the M.Ed. program or consent of instructor.

ED 608B Action Research II (3) Advanced academic study and writing processes for analyzing and evaluating current educational research articles. A synthesis and application of research skills which culminates in an original research proposal. Pre: ED 608A or instructor's consent.

ED 608C Action Research III (3) Principles of research methodology and analysis as applied to field research. Pre: ED 608A and B or consent of instructor.

ED 610 Foundations Of Education (3) Teacher leader focused course. 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. Includes advocating for student learning and the profession. Pre: acceptance into the M.ED. program or instructor's consent.

ED 611 Adv Educ Psychology (3) Foundations of educational psychology through the vehicle of an exploratory study. Inquiry approach stresses learning theory, measurement techniques, and research skills in education. Pre: acceptance into the M.Ed. program or instructor's consent.

ED 612 Literature Review in Education (3) Advanced academic study and writing processes for analyzing and evaluating current educational research articles, literature reviews and graduate student publications. Development of scholarly educational research skills with a focus in content area discipline. Investigation of theoretical and methodological issues of research. Pre: acceptance into the M.Ed. program or instructor's consent.

ED 616 Assess & Evaluation in Ed (3) Teacher leader focused course. systematic study of the theory of measurement, assessment and evaluation in educational settings. Promotes the use of assessments for classroom and school improvements. Pre: acceptance into the M.Ed. program or consent of instructor

ED 616A Assess & Evaluation in Ed I (1) Systematic study of the theory and technology of measurement, assessment and evaluation in educational settings, emphasizing the development and use of traditional techniques. Pre: acceptance into the M.Ed. program or consent of instructor.

ED 616B Assess & Evaluation in Ed II (1) Systematic study of the theory and technology of alternative assessment and evaluation in educational settings with emphasis on field-based applications. Pre:



successful completion of ED 616A or consent of instructor.

ED 616C Assess & Evaluation in Ed III (1) Synthesis and application of measurement, assessment and evaluation in the use, adaptation, and/or creation of appropriate techniques in an original research proposal or thesis. Pre: successful completion of ED 616A & B.

ED 620 Indiv Differences: Learner (3) Teacher leader focused course. Systematic study of the conceptual framework of inclusive education which consists of special education, gifted and talented education and compensatory programs. Emphasis will be placed upon individual student characteristics and strategies for effective instruction. Focuses on continuous professional development and building strong home/school connections. Pre: acceptance into the M.Ed. program or consent of instructor

ED 622 School Curriculum (3) Teacher leader focused course. Development and improvement of curriculum. Explanation of contemporary curricular issues which impact teaching and learning in the classroom. Emphasis on school reform and renewal. Pre: acceptance into the M.Ed. program or instructor's consent

ED 625 Seminar in Teaching Fld (3) (other) Teacher leader focused course. Culminating study in trends, interdisciplinary teaching. Capstone course for Teacher research, and problems of implementation in or instructor's consent Leadership program. Pre: acceptance into the M.Ed. Program

ED 635 Adv Instructional Strategies (3) Teacher leader focused course. A critical examination of newest trends in instruction. Bridges the gap between academic research and classroom implementation. Pre: acceptance into the M.Ed. program or instructor's consent.

ED 640 Learner Development (2) Introduction to theories of learner development, including cognitive, linguistic, emotional, personality, and moral/ prosocial development of students (grades K-12). Exploration of developmentally appropriate and challenging learning experiences. Pre: Admission to MAT program.

ED 641 Learning Differences I (1) Introduction to legislation for students with disabilities. An overview of areas of exceptionality, the basic principles and practices of inclusive instruction, and how to address the special needs of diverse learners. Pre: Admission to the MAT program and ED 640.

ED 642 Learning Differences II (2) Application of inclusive instruction that acknowledges the influence of individual experiences, talents and prior learning, as well as language, culture, family and community values on student learning. Pre: Admission to the MAT program.

ED 643 Learning Environments I (1) Introduction to theory and practice of classroom management at the elementary and secondary school level. Exploration of student motivation and communication techniques as related to the establishment of a positive learning environment. Pre: Admission to the Master of Arts in Teaching program. Co-req: ED 640, 650, 660, and 670.

ED 644 Learning Environments II (1) Introduction to theory and practice of classroom management at the elementary and secondary school levels. Exploration of student motivation and effective communication techniques as related to the establishment of a positive and caring learning environment. Pre: Admission to the MAT program and ED 643.

ED 645 Learning Environments III (2) Exploration of student behavior

and related interventions to promote caring and effective classroom environments. Application of responsible management of student learning. Pre: Admission to the MAT program and ED 644.

ED 650 Teaching in Hawaii's Schools (1) Introduction to culture-based instructional practice, including overview of Na Hopena A'o, to integrate Hawaiian history, language, and culture in effective planning, content knowledge, and assessment of student learning experiences. Pre: Admission to the Masters of Teaching program. Co-req: ED 640, 643, 660, and 670

ED 651 Elem Instructional Practice (2) Introduction to a variety of instructional strategies to support and expand student learning outcomes. Exploration of instructional planning based on knowledge of content areas, cross-disciplinary skills, learners, the community and pedagogy toward elementary student attainment of rigorous learning goals. Required for elementary candidates. Pre: Admission to the MAT program.

ED 652 Elem LA/SS Pedagogy (2) Exploration of the central concepts, tools of inquiry, and multicultural perspectives related to the study of Language Arts and Social Studies. Development of learning experiences that promote learner access and understanding in these disciplines in the elementary classroom. Required for elementary candidates. Pre: Admission to the MAT program.

ED 653 Elem MT/SC Pedagogy (2) Exploration of the central concepts, tools of inquiry, and differing perspectives related to the study of Math and Science. Development of learning experiences that promote learner access and understanding of these disciplines in the elementary classroom. Required for elementary candidates. Pre: Admission to the MAT program.

ED 654 Tech Instruction & Assessment (2) Introduction to the application of educational multimedia technology in 21st century teaching and learning. Development of relevant learning experiences and authentic assessments incorporating contemporary tools and resources to maximize content learning in varied contexts. Required for both elementary and secondary candidates. Pre: Admission to the MAT program.

ED 655 Sec Instructional Practice (2) Introduction to a variety of instructional strategies to support and expand student learning outcomes. Exploration of instructional planning based on knowledge of content areas, cross-disciplinary skills, learners, the community and pedagogy toward secondary student attainment of rigorous learning goals. Required for secondary candidates. Pre: Admission to the MAT program.

ED 656 Sec LA/SS Pedagogy (2) Exploration of the central concepts, tools of inquiry, and multicultural perspectives related to the study of Language Arts and Social Studies. Development of learning experiences that promote learner access and understanding of these disciplines in the secondary classroom. Open to secondary candidates. Pre: Admission to the MAT program.

ED 657 Sec MT/SC Pedagogy (2) Exploration of the central concepts, tools of inquiry, and differing perspectives related to the study of Math and Science. Development of learning experiences that promote learner access and understanding of these disciplines in the secondary classroom. Open to secondary candidates. Pre: Admission to the MAT program.

ED 658 Sec Content Literacy (2) Exploration of the study of literacy processes and strategies for use with 7-12 students within multiple



content areas. Required for secondary candidates. Pre: Admission to the MAT program.

ED 659 Professional Practice (3) Demonstration of ongoing use of evidence for continual evaluation of practice particularly as related to impact on student learning. Documentation of acquired dispositions and skills of critical reflection that support life-long professional meaning. Required for elementary and secondary candidates. Pre: Admission to the MAT program.

ED 660 Professional Responsibility I (1) Overview of professional licensure standards and professional attributes. Professional development through field experiences in local schools. Pre: Admission to the MAT program.

ED 661 Professional Responsibility II (1) Professional development through field experiences in local schools. Critical reflection on classroom instruction and student engagement. Pre: Admission to the MAT program and ED 660.

ED 662 Prof Responsibility III (1) Professional development through field experiences in local schools. Preparation to meet licensure and employment requirements. Pre: Admission to the MAT program and ED 661.

ED 670 Field Experience I (1) Practical application of theories of learner development, learning environments, and instructional planning in local schools. Introduction to schools as learning communities. Pre: Admission to the Master of Arts in Teaching program. Co-req: ED 640, 643, 650, 660.

ED 671 MAT Field Experience II (2) Practical application of theories and teaching methods and strategies in local schools. Supervised observation and teaching with emphasis on lessons and unit planning and instruction. Pre: Admission to the MAT program and ED 670.

ED 672 Clinical Practicum (3) Supervised student teaching and professional development experiences in local schools. Supervised observation and teaching with an emphasis on advanced unit and lesson planning and instruction. Pre: Admission to the MAT program and ED 671.

ED 680 Teacher as Researcher I (3) Introduction to teacher research as a basis for demonstrating impact on student learning. Exploration of effective instructional practices and assessments, IRB approval, and research study elements, including critical analysis of relevant literature and methodology. Pre: Completion of Phase I of the MAT program.

ED 681 Teacher as Researcher II (3) Further exploration of teacher research, resulting in an original classroom-based action research project and presentation of findings. Critical reflection on instructional practice based on research findings. Pre: Completion of Phase I of the MAT program and ED 680.

ED x94 Special Topics in Subject Matter (Arr.) (10) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

ED x99 Directed Studies (Arr.) (10) Statement of planned reading or research required. Pre: instructor's consent.

Hawaiian Language (HAW) Graduate Courses

Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language (KHUOK)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

HAW 500 Master's Plan Studies (1) (other) Used for continuous enrollment purposes. Must be taken for CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

HAW 603 Grad Level Hawn Lang (3) Further development of Hawaiian language ability from the B.A. level to a level appropriate for graduate work. B.A. base reviewed with correction of any problem areas. Introduction of additional patterns, vocabulary, and styles in both oral and written form. Use of resources from late monarchy and early territorial periods. Pre: Admission to MA program in Hawaiian Language and Literature.

HAW 630 Research Methods in Hawn Lang (3) Seminar in which students explore and choose thesis topics.

HAW 631 History of Hawaiian Lang & Lit (3) 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: Admissions to MA program in Hawaiian Language and Literature. Recommended: KHWS 463, 463; LING 331, 432, and 442.

HAW 632 Hawaiian As Second Language (3) Teaching Hawaiian to speakers of other languages, particularly Hawaiian Creole English. This includes problems faced by students in acquiring native-like Hawaiian and history of Hawaiian language teaching. Pre: HAW 453 and 454. Recommended: HAW 431 and LING 351.

HAW 654 Advanced Hawn Grammar (3) Advanced aspects of Hawaiian grammar. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHAW 453, 454; LING 321.

HAW 690 Study in Hawn Spking Community (3) Off-campus field work experience. Pre: HAW 453, 454, and 631.

HAW 693 Thesis and Proposal Writing (3) Seminar for writing and presentation of master's thesis proposal or a section of the master's thesis. Pre: Permission of instructor (conditioned on completion of all required course work prior to writing the thesis).

HAW 700 Thesis Research (1-6) (other) Research and writing of thesis. Pre: HAW 630

HAW x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.



HAW x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [HAW undergraduate-level courses](#).

Hawaiian Studies (HWST) Graduate Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

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HWST 661 Advanced Hawn Music (3) Examination of indigenous and foreign forms found in acculturated Hawaiian music. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHWS 462, 463.

HWST 662 Applied Hawaiian Chant (3) Applied study of the performance of various Hawaiian chant styles. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHWS 462, 463, 473, 474.

HWST 663 Traditional Hawn Literature (3) Focuses on indigenous oral and written literature forms and their relationship to folk tales. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHWS 462, 463.

HWST 664 European Influenced Hawn Lit (3) Hawaiian literature developed on European models such as biographies, late nineteenth-century histories and journals. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHWS 462, 463.

HWST 665 Ethnological & Hist Narratives (3) Descriptions written in Hawaiian regarding traditional Hawaiian culture and history. Cultural topics range from religion and court life to farming and fishing. Conducted in Hawaiian. Pre: Admission to MA program in Hawaiian Language and Literature. Recommended: KHWS 463; ANTH 385, HWST 213, 663.

HWST 690 Study in Overseas Ind Lg Comm (3) Individual off-campus field work experience in an overseas endangered indigenous language community. Participant-observation and interviewing to learn about endangered status of the language and ongoing revitalization work. Comparison to Hawaiian as an endangered language.

HWST x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

HWST x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [HWST undergraduate-level courses](#).

Ke'elikōlani Education (KED) Graduate Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

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KED 550 Coop Tchg Sem Maui Ola (2) (other) Indigenous teacher education issues for providing effective professional leadership for new teachers. Content focuses on teacher development and support strategies, assessment of performance, and conducting effective conferences for the student teacher. Must be taken CR/NC. Conducted in Hawaiian. Pre: teaching license with a minimum of one year Hawaiian language immersion, Hawaiian Studies, or Hawaiian language teaching experience; minimum of three years college-level Hawaiian language course work; and permission from the College.

KED 554 Maui Ola: Learning & Teaching (4) A systematic approach to develop, implement and assess culture-based learning and teaching for the maui ola environment. Content includes understanding of the natural learning cycle; lesson design and delivery; application, alignment, infusion, and assessment of standards; and curriculum cohesiveness. Conducted in Hawaiian.

KED 620 Foundations for Hawn Medium Ed (3) Goals of Hawaiian medium education and their cultural, philosophical, historical and legal bases. Basic tools for planning, developing, delivering and evaluating instruction of Hawaiian-speaking children, including techniques for management and age-appropriate development from a Hawaiian cultural base. Conducted in Hawaiian. Pre: Permission from College.

KED 621 Lang Arts in Hawn Medium Educ (2) Literacy in Hawaiian and associated comprehension and speaking skills. Teaching other languages, including English, to Hawaiian-literate students. Use and teaching of oral and written literature in dramatized presentations. Conducted in Hawaiian. Pre: Permission from the College.

KED 623 Social Studies Hawn Medium Ed (2) Major global and local social processes that affect the lives of Hawaiian-speaking children and their families. Integration of social studies and practical arts with a Hawaiian historical and cultural perspective. Conducted in Hawaiian. Pre: Permission of the College.

KED 625 Phys Ed in Hawn Medium Ed (1) Group and individual expression to convey thoughts and emotions through various media including music, fine arts, dance, fitness and computer technology. Understanding and appreciation of such expressions and their integrations into Hawaiian tradition. Conducted in Hawaiian. Pre: Permission from the Academic Studies Division, Ka Haka 'Ula O Ke'elikōlani College.

KED 626 Science in Hawn Med Education (2) Scientific concepts within a Hawaiian cultural and environmental framework. Techniques for



teaching content, problem-solving, and critical thinking to Hawaiian children. Conducted in Hawaiian. Pre: Permission from the Academic Division, Ka Haka 'Ula O Ke'elikōlani College.

KED 627 Math in Hawn Medium Education (2) Mathematical concepts within a Hawaiian cultural and environmental framework. Techniques for teaching content, problem-solving and critical thinking to Hawaiian-speaking children. Conducted in Hawaiian. Pre: Permission from the Academic Division, Ka Haka 'Ula O Ke'elikōlani College.

KED 628 Arts in Hawaiian Medium Educ (1) Group and individual expression to convey thoughts and emotions through various media including music, fine arts and dance. Understanding and appreciation of such expressions and their integration in Hawaiian tradition. Conducted in Hawaiian. Pre: Permission from Academic Division, Ka Haka 'Ula O Ke'elikōlani College.

KED 630 Res Meth in Indigenous Lang (3) (other) Seminar in which students explore and choose a thesis topic or applied project topic.

KED 641 Hawaiian Medium Field Exp I (9) (other) Practical experience and application of teaching methods and strategies in content areas in Hawaiian medium schools. Must be taken CR/NC. Conducted in Hawaiian. Pre: KED 620, 621, 622, 623, 624; concurrent enrollment in KED 642 and permission from the College.

KED 642 Hawaiian Med Fld Exp I Seminar (3) (other) Problems in application of theory in the delivery of instruction in Hawaiian medium classrooms. The interface between Hawaiian medium and English medium classrooms of an individual school. Must be taken CR/NC. Conducted in Hawaiian. Concurrent registration in KED 641 and permission from the College.

KED 643 Hawaiian Medium Fld Exp II (9) (other) Supervised teaching in Hawaiian medium schools. Must be taken CR/NC. Conducted in Hawaiian. Pre: concurrent registration in KED 644 and permission from College.

KED 644 Hawaiian Med Fld Exp II Sem (3) (other) Issues in the delivery, administration, and support of Hawaiian medium education. Must be taken CR/NC. Conducted in Hawaiian. Pre: concurrent registration in KED 643 and permission from the College.

KED 660 Indigenous Culture-based Educ (3) (other) Understanding appropriate education of indigenous peoples, through a review of practices that have been described and theories that have emerged from a variety sources.

KED 661 Curr Dev Maui Ola-based Sch (3) (other) Seminar in the development of an integrated curriculum from the earliest to the highest levels of Hawaiian language medium schooling, using international research and standards of excellence within a Hawaiian language and culture context and world view.

KED 662 Indigenous Well-being Thru Edu (3) (other) Psychological and cultural perspectives of human development and well-being of indigenous peoples. Designed to promote, nurture, explore and understand the influence of culture on the indigenous person. Of special interest to educators in schools serving indigenous students regarding cultural understandings and change in a historical and contemporary context.

KED 693 Applied Rsrch in Indigenous Ed (3) (other) Seminar in which students develop projects providing direct application to an aspect of indigenous language and culture education.

KED x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KED x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [KED undergraduate-level courses](#).

Ke'elikōlani Indigenous Language (KLAN) Graduate Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

KLAN 701 Semantic/Pragmatic Indig Lang (1) Seminar study of meaning and connotations as conveyed by the morphemes and vocabulary of a language, by its idioms and set metaphors and by other features. Focus on the indigenous languages being studied by the enrolled students.

KLAN 702 Stylistics/Domains Indig Lang (1) Seminar study of identity, levels of formality, and art as conveyed in languages. Informal peer group language to highly formal language. Highly traditional usages to the most contemporary of usages. Focus on the indigenous languages being studied by enrolled students.

KLAN 703 Semantics-Prag of Indig Langua (3) Meaning and connotations as conveyed in a specific indigenous language through morphemes and vocabulary, idioms and set metaphors, and through other features. Alpha varies according to the language, e.g. Hawaiian, Blackfoot, Rapanui. May be repeated if content is different. Pre: KLAN 701.

KLAN 704 Stylistics-Domain of Indig Lan (3) Identity, levels of formality and art as conveyed in a specific indigenous language from the informal peer group language to highly formal artistic usages and from very traditional rooted situations to the most contemporary of usages. Alpha varies according to the language, e.g., Hawaiian, Blackfeet, Rapanui. May be repeated if the content is different. Pre: KLAN 702.

KLAN x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KLAN x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.



Additional Courses

Also see the [KLAN undergraduate-level courses](#).

Ke'elikōlani Indigenous Studies (KIND) Graduate Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

KIND 601 Language Maintenance and Shift (3) Introduction to the study of social, historical, political, cultural and economic factors leading to language shift.

KIND 602 Meth/Resou Indig Lang Comm Blg (3) Detailed overview of the various challenges to language and culture revitalization and approaches to solving those challenges, including issues of leadership, goal setting prioritizing and resourcing.

KIND 690 Fld Stdy Indigenous Community (3) Off-campus field work experience in an indigenous language other than Hawaiian. Pre: Graduate status in Ka Haka 'Ula O Ke'elikōlani and permission of the instructor. See graduate program chair for overseas minority language study option as substitute for this course.

KIND 700 Master's Thesis Research (1-6) (other) Research and writing of thesis. Pre: Permission of college and instructor.

KIND 730 Rsch Meth Hwn Ind Lang Culture (3) (other) Seminar in which students explore and choose a dissertation topic.

KIND 800 Doctoral Dissertation Research (1-6) (other) Research and writing of dissertation. Pre: Permission of college and instructor.

KIND x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KIND x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [KIND undergraduate-level courses](#).

Ke'elikōlani Linguistics (KLIN) Graduate Courses

[Ka Haka 'Ula O Ke'elikōlani/College of Hawaiian Language \(KHUOK\)](#)

Built upon a core commitment to Hawaiian language and culture education, Ka Haka 'Ula O Ke'elikōlani provides courses that also address

the broader world of indigenous peoples and the use of Hawaiian as an official medium of education for the State of Hawai'i. Courses are marked with an initial K (for Ke'elikōlani) followed by an appropriate alpha, e.g. HAW (Hawaiian), HWS (Hawaiian Studies), IND (Indigenous Studies), ANT (Anthropology), ED (Education), etc.

KLIN 601 Genrl Ling Indigenous Context (3) A broad overview of contemporary linguistics with a focus on indigenous languages.

KLIN 603 Sociolinguistic Anal Indig Lan (3) Expansion from KLIN 601 in the study of the relationship between language and society. Topics covered include varieties of languages (e.g., standard languages, varieties/dialects/pidgins/creoles/registers/styles) and types of speech communities (e.g., bi/multilingual, diglossia) and functions of language. Focus on application to indigenous language contexts. Pre: KLIN 601.

KLIN x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

KLIN x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Nursing (NURS) Graduate Courses

[College of Arts and Sciences \(CAS\), School of Nursing](#)

NURS 500 Masters Plan Studies (1) Used for continuous enrollment purposes. Must be taken as CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

NURS 601 Social Aspects of Health (3) Complex interactions among the physical and social environment; health status; education; culture; and human capital in urban and rural communities are examined. Issues related to quality of life as the outcome of micro and macro-determinants of health, consequences of health that operate at the individual, family, neighborhood, community, national and global levels, and the influence of sociopolitical agendas and community organizations are addressed through a multidisciplinary framework.

NURS 602 Information Systems/Technology (3) Examines emerging health information resources including: 1) the theory and conceptual base for healthcare information systems and technology; 2) design, selection, and use of current and developing health information technology applications; and 3) approaches to evaluating the effectiveness of health information systems used in health care systems, for patient care and in education.

NURS 603 Adv Clinical Pharmacology (3) Focus on the pharmacotherapeutic principles of drugs most commonly used by advanced practice nurses. Emphasis on the process of selecting appropriate agents for therapy, and monitoring adverse drug reactions or interactions with prescription, over-the-counter and alternative therapies. Emphasis on integration of pharmacy, physiology and physical assessment in developing evidence-based primary clinical management skills for patients across the lifespan with regard to their medication use. Foundations of prescriptive authority will be addressed.



NURS 604 Advanced Clin Pathophysiology (3) Advanced pathophysiological concepts and clinical manifestations of diseases necessary to support clinical decision-making of advanced practice nurses in the management of common acute and chronic diseases of adults, older adults and children are presented. Internal and external causative factors for disease expression including genetic, autoimmune, environmental, and biochemical will be addressed and rational therapies to prevent or control illness will be offered. Analysis of the interrelated effects of genes, environment, and lifestyle on patterns of disease in populations will be an integral part of developing evidence-based care. Relevant screening and diagnostic laboratory evaluation methods will be presented.

NURS 605 Advanced Health Assessment (4) (lecture/lab) Focus of this course is on the integration and synthesis of knowledge from natural and behavioral sciences, humanities and nursing in order to conduct a comprehensive history and physical examination. Diagnostic reasoning for the purpose of clinical decision-making and problem solving will be stressed. Interview techniques will address developmental, psychosocial, cultural and occupational concerns as well as symptoms. Advanced examination skills and analysis of pertinent diagnostic data will support critical thinking and selection of accurate differential diagnoses. Faculty and preceptors facilitate laboratory and clinical experiences in a variety of settings (90 clock hours).

NURS 606 Rural Health Promotion (3) Focus is on the responsiveness of organizational health services to health needs of populations, individuals, and families in rural communities. The impact of political, ecological, economic and cultural factors on community health in rural areas will be analyzed. Utilization of evidence-based processes and collaborative leadership in designing and structuring health promotion services to address rural community needs are emphasized.

NURS 606L Rural Health Promotion Lab (3) (lab) This is a supervised advanced practice practicum focusing on health promotion and clinical management of the health concerns of adult clients as commonly encountered in diverse and rural primary care settings. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Three (3) semester hours of supervised practicum hours (135 clock hours) are required.

NURS 607 Primary Care of Adults (3) Course focus is on primary care of adults addressing the evidence-based strategies for health promotion and disease prevention. Integration and application of advanced pathophysiology and pharmacology will aid in addressing the management of common acute, episodic and chronic health problems. Transcultural and biobehavioral assessments are used in the diagnosis and evidence-based management of health problems and are integrated into patient education and evaluation of care.

NURS 607L Primary Care of Adults Lab (3) (lab) This supervised advanced practice practicum focuses on health promotion and clinical management of the health concerns of adult clients as commonly encountered in diverse and rural primary care settings. Emphasis will be placed on culturally appropriate evidence-based practice, consultation research and evaluation. Three (3) semester hours of supervised practicum hours (135 clock hours) are required.

NURS 608 Primary Care of Older Adults (3) Building on the management of acute and chronic illness of the adult, this course emphasizes special needs of the older adult. The focus on quality of life will be supported utilizing theories of aging, management of complex chronic health problems, polypharmacy, dementia and frailty. Evidence-based management plans incorporating transcultural and functional assessments are used to address issues of self-care, family care giving,

surrogate decision-making and end of life care.

NURS 608L Prim. Care of Older Adults Lab (3) (lab) This supervised advanced practice practicum focuses on promotion and clinical management of the health concerns of older adult clients as commonly encountered in diverse and rural primary care settings. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Three (3) semesters of supervised practicum hours (135 clock hours) are required.

NURS 609 Primary Care of Women (2) The provision of comprehensive and culturally competent primary care to women including the maturation process from menarche, through pregnancy, childbearing period and menopause is presented. Emphasis is on evidence-based health assessment, diagnosis, health education, health promotion, disease prevention, perinatal care, clinical management and evaluation of common gynecologic and obstetric health care needs of women commonly encountered in diverse and rural settings.

NURS 609L Primary Care of Women Lab (2) (lab) This supervised advanced practice practicum focuses on health promotion and clinical management of the health concerns of female clients as commonly encountered in diverse and rural primary care settings. The health and wellness, perinatal care, gynecologic aspects of care and occupational health concerns of women will be specifically addresses. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Two (2) semester hours of supervised practicum hours (90 clock hours) are required.

NURS 610 Primary Care of Children (2) Using normal development and physiology as the foundation of care, evidence-based management of the health and social needs of children will be addressed. Management of acute and episodic illnesses in children commonly encountered in diverse primary care settings is emphasized. Health education, health promotion and disease prevention of children are addressed.

NURS 610L Primary Care of Children Lab (2) (lab) This supervised advanced practice practicum focuses on health promotion and wellness for infants, children and adolescents. Students will focus on clinical management of common acute and chronic health conditions encountered in diverse and rural primary care settings related to infants, children and adolescents. Emphasis will be placed on culturally appropriate evidence-based practice, consultation, research and evaluation. Two (2) semesters hours of supervised practicum hours (90 clock hours) are required.

NURS 611 Advanced Research Methods (3) This course focuses on the systematic examination and application of the qualitative, quantitative, and outcome processes used in nursing research. The interrelationships among research theory, research ethics and evidence-based nursing practice are explored. Uses of culturally appropriate research database tools consistent with specific patients or populations are included.

NURS 612 Evidence Based Practice (3) Focus is on culturally appropriate evidence-based practice (EBP) used to produce best outcomes for diverse populations. Steps of the EBP process, implementation and evaluation of EBP, practical strategies and information systems approaches are explored. Proposal development for the practice inquiry project will be a primary objective of the course and will address issues and practices relevant to culturally diverse and rural populations.

NURS 613 Program Develop/Evaluation (3) This course builds on the



synthesis of evidence-based knowledge for a specific culturally diverse clinical target population/practice. Students will identify and propose appropriate strategies for organizational/practice program development and evaluation. An innovative policy action plan for a population of interest based on an understanding of the cultural, financial, legal, and human resource needs of the health care environment is developed.

NURS 614 System-Based Leadership (3) Leadership and management concepts used to address complex microsystem and macrosystem issues within selected health organizations are explored. The role of the DNP within complex health organizations will be addressed using the interrelationships of special theoretical frameworks and models of care. Emphasis is on the application of advanced communication skills necessary to serve on collaborative and interdisciplinary teams within health care organizations.

NURS 615 Health Policy: Local to Global (4) Emphasis will be on exploration and analysis of health policy from the perspective of evidence development, analysis, and socio-economic context. The leadership role of the DNP in developing and implementing health policy is examined. Social justice, access equity, and delivery of health care services will be discussed. Opportunities are provided to participate in the political processes impacting nursing and health care policy. Includes two semester hours of a specialty focused practicum (90 clock hours).

NURS 616 Health Economics (3) Basic economic theory, market drivers and restraints, cost/benefit analysis, and reimbursement are analyzed. Theory and application are integrated with a focus on the role of the DNP in complex healthcare organizations, the delivery of healthcare in rural settings, and the DNP as entrepreneur. Issues of equity, fairness, ethics, and efficacy in health care resource allocation and management are explored.

NURS 617 Practice Inquiry/Project (6) (lecture/other) Emphasis is on the synthesis, critique and application of evidence to support quality clinical or organizational practices in complex health care organizations. Students will implement an evidence-based clinical study or project on a topic of practice interest targeting a culturally diverse and vulnerable population, present an oral presentation of the study or project, and submit a scholarly paper from the study or project. Includes six semester hours of cognate residency.

NURS 618 EPI/Environmental Health (3) Epidemiological concepts and quantitative research techniques used in modern epidemiology will be examined as well as the health effects on the general population associated with selected environmental exposures. The course emphasizes analytical studies, quantitative measures of association, and critical readings of current literature. Epidemiology approaches estimating the burden of disease and evaluation of primary, secondary and tertiary prevention strategies are presented.

NURS 619 Mentorship in Nursing Educ (3) Supervised practicum in instructional planning and teaching in nursing education. Students may choose between two pathways: mentorship and teaching in a didactic course or clinical practicum.

NURS 620 Contemp Health Care Ethics (3) Contemporary Health Care Ethics provides a thorough grounding in ethical principles and theories as evidenced in current healthcare issues and policies. Introduction of various frameworks for ethical decision-making and policy analysis, as well as current trends in the political, economic and legal spheres of the contemporary health care arena.

NURS 621 Practice Residency Elective (3-5) (lab) This clinical residency elective is designed for DNP students to add clinical hours

after finishing required clinical coursework. The clinical residency, under the supervision of a preceptor and UHH SON faculty, emphasizes culturally appropriate evidence-based practice, consultation, research and evaluation consistent with the APRN role. Three to five (3-5) semester hours of supervised practicum hours (135-225 clock hours) will be approved. This course is repeatable up to 10 credit hours.

NURS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

NURS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [NURS undergraduate-level courses](#).

Pharmacy Practice (PHPP) Post-Baccalaureate Courses

Daniel K. Inouye College of Pharmacy (DKICP)

PHPP 501 Intr Pharm Prac Experiential I (1) (other) First year pharmacy students will spend a semester in either the retail pharmacy setting or hospital pharmacy setting to observe pharmacy practice. Graded: P/NP. (Attributes: ALEX, GCC)

PHPP 502 Int Pharm Prac Experiential II (1) (other) The second course in the IPPE sequence will build on the skills and the knowledge of PHPP 501 to develop pharmaceutical care practice. Graded: P/NP. (Attributes: ALEX)

PHPP 503 Intr Pharm Prac Experien III (1) (other) Second year students will begin to develop their patient interview, chart gathering and case development and presentation skills. Students will spend one semester in community health care clinics and one semester in a long term care facility. Students will present actual patient care cases in a seminar format throughout the semester. Graded: P/NP. (Attributes: ALEX, GCC)

PHPP 504 Intr Pharm Prac Experien IV (1) (other) Second year pharmacy students will begin to develop patient interview, chart gathering and case development and presentation skills. Students will spend the semester either in a community health care clinic or in a long term care facility. Student will present actual patient care cases in a seminar format throughout the semester. Graded P/NP. (Attributes: ALEX)

PHPP 505 Intr Pharm Prac Experiential V (1) This course is the fifth course in a sequential series. Content encompasses exposure to institutional hospital pharmacy. Pre: Acceptance in the UH Hilo CoP (Attributes: ALEX, GCC)

PHPP 506 Int Pharm Prac Exp - Retail (1) (other) This course is third in a sequential series. Content encompasses an introduction to pharmacy practice in a community setting through observational and direct delivery of care to patients. Types of patients encountered-adolescents, adult and geriatric patients in retail/community setting. All



students must begin the application process for a valid Hawai'i intern license. (Attributes: ALEX)

PHPP 507 Int Pharm Practice Exp - VII (1) (other) This six week rotation focuses on pharmaceutical care in the ambulatory care environment where students will interface with their pharmacist preceptor, physicians, nurses and other health professional to provide services to ambulatory care patients. Some examples of ambulatory care practices will include hypertension clinics, medication therapy management (MTM) services and disease state management.

PHPP 508 Intro to Biostatistics (3) This course serves as the structural framework for a career that relies heavily on the ability to understand, evaluate and communicate medical information. The student will learn basic statistical and epidemiologic skills critical for the evaluation of medical literature and for conceptualizing what constitutes truly evidence-based medicine.

PHPP 509 Adv Pharm Pract Exp: Medicine (5) (other) This six week rotation will place students in a hospital or other acute care facility to learn about pharmaceutical care in an inpatient environment. Students will work closely with physicians and clinical pharmacists to provide services to acutely ill patients and provide clinical pharmacy services. Students may round with medical teams or be partnered with other physicians to learn more about the interface between medicine and pharmacy.

PHPP 510 Pharmacy Self Care I (2) This course is the introduction to the integrated therapeutics sequence which is the core of the pharmacy curriculum, combining therapeutic knowledge with the application of pharmaceutical care. This course is an in-depth review of over-the-counter medications, development of Top 200 prescription drug knowledge and provides a foundation for understanding and interpreting laboratory test values. Pre: Admissions to PharmD Program.

PHPP 511 Pharmacy Self Care II (2) This course continues the in-depth examination of self-care and over-the-counter (OTC) medications, and development of Top 200 prescription drug knowledge, begun in PHPP 510. Additionally, this course provides a foundation for organizing patient-specific information necessary in the management of medical conditions, as well as identifying and interpreting laboratory test values commonly used in the management of medical conditions, in preparation for the Integrated Therapeutics course series. Pre: Admissions to the PharmD program.

PHPP 514 Evidence-Based Medicine (3) In this course, students will learn about research methods and biostatistics necessary for the critical evaluation of medical literature. Students will be exposed to descriptive statistics, inferential statistics, probability, Type I and Type II errors, bias and confounding, sample size and statistical power, absolute and relative risk, intention-to-treat analyses, number needed to treat and confidence intervals. Students will learn how to critically evaluate medical literature and recognize errors in study design or statistical methodology and determine the internal and external validity of published research trials. Pre: PHPP 508 (Biostatistics).

PHPP 515 Integrated Therapeutics I (7) (lecture/other) This is the first course in a sequence of four courses. Pathophysiology, medicinal chemistry, pharmacology and therapeutics will be integrated into one discipline in this course that will examine pharmacotherapy based on organ systems of the body. Students will learn to blend their factual knowledge of basic sciences and apply this knowledge to drug treatment of specific disorders in disparate patients. Beginning in this course the pharmacotherapy of all major diseases states covered by organ system.

PHPP 516 Integrated Therapeutics II (7) (lecture/other)

Continuation of the medicinal chemistry, pharmacology, pathophysiology and therapeutic use of drugs which was started in Integrated Therapeutics I. An integrated approach to the following topics will be covered: gastrointestinal, genitourinary, endocrine, renal, and pulmonary diseases.

PHPP 517 Integrated Therapeutics III (7) Continuation of pharmacotherapy of disease states by organ systems which was started in PHPP 515, Integrated Therapeutics I, and continues in PHPP 516, Integrated Therapeutics II. An integrated approach to the following topics will be covered: disease states associated with the endocrine and central nervous systems.

PHPP 518 Integrated Therapeutics IV (7) This course is a continuation of PHPP 515, 516, and 517. It will cover the topics of infectious disease and oncology in an integrated fashion.

PHPP 519 Health Care Systems (2) This course is designed to give students a history and overview of the American health care system. Roles of the major drivers in health care including government, employer groups, HMO's, hospitals, providers and payors will be examined. Market components of prescription drug utilization will be discussed in detail. Additionally, the European health care model will be compared to the American system. Pre: second year standing in CoP.

PHPP 520 Pharmacy Law and Ethics (3) The evolution of the practice of pharmacy has led to pharmacists facing an overwhelming number of legal issues. In addition to the standard coverage of the FD&C Act, the Controlled Substances Act and regulations of the Federal Trade Commission, this course will help student understand legal issues such as HIPAA privacy issues in the pharmacy, electronic prescribing, medication error reporting, professional liability insurance and Medicaid/Medicare issues. Current and past cases in the law will be used as practical examples of these concepts. In addition, students will participate in discussions and debates of ethical issues facing pharmacists in today's health care environment.

PHPP 521 Applied Pharmaceutical Care (3) This course will consist of workshop and case presentations to incorporate physical assessment skills and multi-disease state cases. Students will work in large and small sized groups to review patient cases and present in the SOAP format. This course will be the capstone course for the Pharmacy Practice curriculum before the Advanced Pharmacy Experiential rotations and will emphasize critical thinking and evaluation for multi-disease state patient cases as well as patient education.

PHPP 522 Pharm Practice Mgmt & Mktng (2) The first part of the course, marketing of pharmacy services, programs or products, is intended to use the marketing skills learned, to effectively collaborate in groups to develop a two market plan for innovative pharmacy services, programs or products. In developing these market plans, topics covered in lecture including consideration of economic, environmental, marketing and financial factors are stressed along with the use of appropriate outcome measures to determine success of the plans. Group interaction and activities will further help build upon principles learned in the course and ultimately culminate in the completion of a formal business proposal which will be presented to an executive committee. The second part of this course deals with practice management and is designed to introduce concepts and encourage further development of essential managerial skills, specific areas of focus includes personnel management, dealing with conflict in the work place, and continuous quality improvement. Communicating, understanding, and collaborating with fellow employees or colleagues are vital to any practice and are demonstrated through activities over the duration of the course. This



section also includes certain standard practice that is carried out as managerial responsibilities in the health care setting. Pre: Admission to PharmD.

PHPP 523 Wellness & Disease Prevention (2) This course provides students with an overview of what constitutes a healthy lifestyle and how it contributes to the prevention of chronic disease. Pharmacists are key providers in helping to educate patients about wellness and disease prevention. Disease State Management (DSM) is an organized, coordinated process to manage specific disease states over the entire course of the disease to improve clinical and economic outcomes for the patient. Students will be exposed to important DSM models such as the Asheville Project in North Carolina and utilize this information in creating a disease management program.

PHPP 524 Pharmacoeconomics (2) This course introduces pharmacy students to the basic concepts, terminology, and applications of pharmacoeconomics and its usefulness in making informed decisions in health care.

PHPP 525 Complementary Medicine (3) This course is designed as an overview of complementary medicine. Students will be presented a balanced unbiased view of the theory and practice of some of the more popular complementary therapies such as acupuncture, traditional Chinese medicine, homeopathy, herbal medicine, and other dietary supplements. (Attributes: HPP)

PHPP 527 Drug Information (2) Pharmaceutical care requires pharmacists to become the primary source of drug knowledge. Effective drug information and searching, interpreting, synthesizing and disseminating skills are a vital part of routine pharmacy practice. In preparation for practice and life-long learning, it is critical that all pharmacy students receive adequate training in drug information and drug literature/ resource evaluation as a fundamental core upon which to build their clinical skills. Pre: Admission to the PharmD

PHPP 528 Pharmacy Comm & Culture (3) This course serves as an introduction to pharmacy practice. The multi-cultural State of Hawai'i will serve as a practical laboratory for students to begin practicing the skills necessary to provide pharmaceutical care. During the first portion of the course, video presentations, vignettes, readings and classroom activities will be used to highlight aspects of cultural awareness and sensitivity important to successful contemporary pharmacy practice. Pre: Admission to the Pharm D.

PHPP 530 Basic Research Methods (1) This course is designed to give students an introduction to basic research methods, including measurement and designs as well as research ethics and writing skills for research. This course is required for pharmacy students in the Certificate Program in Health Science Research.

PHPP 531 Survey, Epidem, Qual Methods (1) This course is designed to give students an introduction to survey, epidemiology, and qualitative research methods. This course is required for students enrolled in the Health Science Research certificate program.

PHPP 532 Pharmacy Research (1) This course is designed to give students an introduction to research methodology in pharmacy practice, including program evaluation and big data designs. This course is required for students enrolled in the Health Sciences Research certificate program.

PHPP 533 Pharmacogenomics (2) Pharmacogenomics is the study of genetics variations that may influence an individual's response to drug therapy. Knowing whether a patient carries any of these genetic

variations can help prescribers and pharmacists individualize drug therapy, decrease the chance for adverse drug events, and increase therapy effectiveness.

PHPP 540 Adv Pharm Prac Exp: Ambulatory (6) This six week rotation focuses on pharmaceutical care in the ambulatory care environment where students will interface with their pharmacist preceptor, physicians, nurses and other health professional to provide services to ambulatory care patients. Some examples of ambulatory care practices will include hypertension clinics, anticoagulation clinics, hyperlipidemia clinic, medication therapy management (MTM) services and disease state management. (Attributes: ALEX)

PHPP 541 Adv Pharm Prac Exp: Community (6) This six week rotation focuses on pharmaceutical care in the community pharmacy setting where students will work with pharmacy preceptors to learn about dispensing techniques, pharmacy databases, community pharmacy management, patient counseling, over the counter (OTC) medications, medication therapy management (MTM), and disease state management. (Attributes: ALEX)

PHPP 542 Adv Pharm Prac Exp: Medicine (6) This six week rotation will place students in a hospital or other acute care facility to learn about pharmaceutical care in an inpatient environment. Students will work closely with physicians and clinical pharmacists to provide services to acutely ill patients and provide clinical pharmacy services. Students may round with medical teams or be partnered with other physicians to learn more about the interface between medicine and pharmacy. (Attributes: ALEX)

PHPP 543 Adv Pharm Pract Exp: Hospital (6) (other) Six week rotation will place students in a hospital pharmacy where they will learn about unit dose systems, automated dispensing units, parenteral drugs, intravenous mixture systems, sterile produce preparation, hospital pharmacy computer systems, physician order entry, crash cart systems and DRG/ICD-9 systems used in tracking patient diagnoses and reimbursement for services. (Attributes: ALEX)

PHPP 544 Adv Pharm Pract Exp: Elect I (6) (other) Six-week rotation will place students in the many different areas of pharmacy practice including: adult medicine, pediatrics, geriatrics, infectious disease, critical care, oncology, cardiology, psychiatry, ambulatory care, community practice, drug information, pharmacy compounding, home health care, clinical or basic sciences, research and pharmacy administration. (Attributes: ALEX)

PHPP 545 Adv Pharm Prac Exp: Elect II (6) This six week rotation will place students where they may spend time in the many different areas of pharmacy practice including: adult medicine, pediatrics, geriatrics, infectious disease, critical care, oncology, psychiatry, ambulatory care, community practice, drug information, pharmacy compounding, home health care, clinical or basic sciences research, and pharmacy administration. (Attributes: ALEX)

PHPP 546 Adv Pharm Practice Experience (6) (other) This course is an advanced pharmacy practice experiential elective that directly involves patient care activities. Types of patients encountered-patients of all ages in the acute, ambulatory and community setting. Level of student responsibility - all students must have a current Hawaii Pharmacy Intern License, successfully completed the APhA immunization delivery course and accept all accountability for patient care. Disease State/conditions student may encounter: see PHPP 540, 541, 542, 543 syllabi. Pre: fourth year standing.

PHPP 547 APPE - NAPLEX/MPJE Preparation (1) The purpose of this



course is to introduce the pharmacy students to the North American Pharmacist Licensure Examination (NAPLEX) and the Multistate Pharmacy Jurisprudence Examination (MPJE) used by the National Association of Boards of Pharmacy (NABP) as part of the assessment of a pharmacy graduate's competence to practice as a pharmacist, and to help the student prepare for his/her licensure examinations

PHPP 550 History of Pharmacy (2) This elective is of value to appreciate the origin of pharmacy and the manner in which ancestors of the field practiced their art. These historical aspects will be discussed as well as techniques, tools, symbols, and art in pharmacy.

PHPP 553 Current Topics in Healthcare (1) Healthcare is no longer defined as a patient seeking the service of a provider. Healthcare inflation is exacerbated by the cost of government programs such as Medicare, unemployment, fraud, defensive medicine and changing technology in healthcare. Pending healthcare reform promises to change some of the healthcare delivery system as we know it today. This course will focus on the healthcare issues facing providers of healthcare with a focus on pharmacy, payers of healthcare, and users of the healthcare delivery system. Current events will be the basis of topics for discussion. Pre: PHPP 519.

PHPP 554 Zoonotic Diseases (1) This course is designed to introduce students to the definition, history, origin and transmission of zoonoses; commonly encountered zoonotic diseases as well as those commonly encountered in Hawaii. Covered are bacterial, tick-borne bacterial, fungal, parasitic, viral and prion zoonoses. Emphasis will be made on those that are life-threatening to humans, for example, leptospirosis, rabies, transmissible spongiform encephalopathies, etc. Pre: acceptance and second year standing in the College of Pharmacy.

PHPP 555 Intro to Veterinary Medicine (1-2) This course is designed to introduce students to the profession of veterinary medicine and how it is dependent on pharmacology. Lectures include veterinary medical education; and practicing small animal medicine, large animal medicine (equine and food animal), and exotic animal medicine, inclusive of the daily challenges encountered in practicing medicine. Introductions to diseases, whether infectious or non-infectious, of various etiologies will be made. The realms of veterinary medicine, for example, diagnostic tools (physical examination, imaging, clinical pathology, etc.), treatment options (medicinal, surgical, physical therapy, conservative, etc.) and career opportunities will be emphasized. Pre: Acceptance and second year standing in College of Pharmacy.

PHPP 556 Adv Topics in Hypertension (1) High blood pressure affects over 70 million people in the United States today. This disease carries significant morbidity and mortality which will only increase with our aging population. The treatment of hypertension is highly complex and frequently changes based on new clinical evidence. Students will discuss in depth the diagnosis and various treatments (both pharmacologic and non-pharmacologic) of hypertension. Pre: PHPP 515.

PHPP 557 Personal Finance (1) This course will provide an introduction to the basic principles and skills of personal financial management, including saving, borrowing, insurance, investment, and budgeting. Special emphasis will be given to the issues most relevant to new pharmacists, such as student loan repayment, financial implications of career mobility, and retirement options based on type of healthcare employer.

PHPP 558 Business Admin Overview (1) This course will provide an overview of the basic concepts and functions involved in managing a business, including accounting, human resource management, production and operations management, organizational behavior and

culture, and project management.

PHPP 559 Spanish for Healthcare Profess (1) This course provides a unique opportunity in developing culturally aware clinical language skills for the Spanish speaking patient population, optimizing all aspects of medication therapy management for this patient population. Pre: Second year standing in College of Pharmacy

PHPP 560 Pharmacy Leadership (1) Leadership skills is one of the determining factors in the success of many new pharmacy graduates. This course will incorporate current literature, management theory and viewpoints of academic and practice community leaders to understand leadership at different levels in pharmacy practice environment. This course will focus on raising awareness of leadership and exercising core leadership skills in pharmacy students. Pre: admission to PharmD.

PHPP 561 Pharmacy and Therapeutics Comp (1) This course is designed to inform pharmacy students about the importance and functions of Pharmacy and Therapeutics Committees. All hospitals and managed care organizations use P and T committees to make therapeutically appropriate pharmacoeconomic decisions about their formularies. This course will serve to navigate the mechanics of a P and T. All students will present a drug to the committee with a rationale for its inclusion or exclusion from a formulary. A competition will be held at the end of the course. Pre: Admission to the Pharm D.

PHPP 564 Advanced Managed Health Care (1) This course will provide an introduction to the basic principles and alphabet soup of managed healthcare, to include MCO's, PBM's, PPO's, HMO's, CDH, VA, and DoD. We will present and discuss topics of particular interest to the future of Pharmacy management including Pay-for Performance, Medicare, and Medicaid along with a discussion on the Obama Health Care Reform. Special emphasis will be given to providing students a better understanding of the financial drivers of healthcare management within each segment. A discussion of taxonomy and functional differences between managed health care segments provide the framework for the operational differences. Pre: Acceptance in the College of Pharmacy and second or third year standing.

PHPP 567 Rural Health Science Intro (2) Introduction to basic concepts in rural health science, including measurement, methods, and testing solutions to rural health problems.

PHPP 568 Rural Health Science Advanced (2) (lab) In-depth consideration and analysis of special topics in rural health science to advance student thinking and application of the topics covered in the introductory course.

PHPP x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PHPP x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Pharmaceutical Science (PHPS) Post-Baccalaureate Courses

Daniel K. Inouye College of Pharmacy (DKICP)



PHPS 501 Biochemistry - Biomolecules (2) The course will lay the biochemical foundation for the understanding of medicinal chemistry, pharmaceuticals, pharmacology and pathophysiology. The course will cover protein, DNA, and RNA function, in addition to their regulation and repair. The ultimate goal of this course is to present principles critical for understanding the biochemical basis for disease states and drug action.

PHPS 502 Biochemistry - Metabolism (2) "Biochemistry - Metabolism" will delve into metabolism and the interrelationships of metabolic processes. The biochemistry of metabolism focuses on glycolysis, the tricarboxylic acid cycle, the electron transport chain and oxidative phosphorylation, gluconeogenesis, and the synthesis and breakdown of biomolecules (carbohydrates, lipids, and amino acids). Metabolic control and regulation of pathways will be emphasized, including a discussion on the fundamentals of signal transduction in relation to hormone action. Clinical correlates and metabolic diseases will be examined.

PHPS 503 Pharmaceutical Calculations (2) In this course, students will learn the fundamentals of pharmaceutical calculations, including use of the SI system of units, methods of measurement and expressions of concentration. In addition they will learn what constitutes an accurate, understandable and legal prescription or medication order. Through a series of lectures and exercises based on intensive problem solving, students will learn to perform the calculations required for the preparation of a range of pharmaceutical dosage forms as well as for their proper administration to the patient. Emphasis will be placed on accuracy and prevention of medication errors.

PHPS 504 Pharmaceutical Immunology (3) Basic concepts of immunology, including innate immunity, antigen recognition, lymphocyte development and adaptive immunity will lay the groundwork for understanding immunity in a clinical context. Students will learn the role of the immune system in allergy, auto-immune disease, graft rejection and tumor immunogenicity. Methods of manipulating the immune system pharmacologically will be discussed as well as biotechnology applications.

PHPS 505 Pharmaceutics I (3) (lecture/lab) Students will be introduced to issues, theory, and practice involved in the rational choice of drugs, dosage forms, and drug delivery systems, and the legal and professional issues in drug compounding. Discussion of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of the class. Students will become comfortable with equipment, procedures, and records used in the compounding of various dosage forms, and will practice clinical dispensing skills vital to shaping a truly professional pharmacist.

PHPS 506 Pharmaceutics II (3) (lecture/lab) Students will be introduced to issues, theory and practice, involved in the rational choice of drugs, dosage forms and drug delivery systems, and the legal and professional issues in drug compounding. Discussions of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of class. Students will become comfortable with equipment, procedures and records used in the compounding of applications.

PHPS 509 Applied Pathophysiology (3) (lecture/lab) This course will begin with a review of basic physiological topics that are of special importance to pharmacy, e.g. the autonomic nervous and cardiovascular systems. Following this will be an introduction to the discipline of pathology. This course will review the pathophysiology of the major disease states giving students the background knowledge necessary to understand subsequent therapeutics classes.

PHPS 511 Pharmacokinetics (3) Students will learn about the time course a drug occupies in the human body. Topics to be covered include drug bioavailability, drug absorption, distribution, metabolism and elimination, pharmacokinetics of various dosage forms, routes of administration and drug effects over time. The effects of patient weight, gender and age on drug pharmacokinetics will be discussed along with the therapeutic variation that occurs with these patient parameters. Students will use pharmacokinetic calculations to be able to solve problems in clinical pharmacokinetics. Emphasis will be placed on using pharmacokinetic principles to decrease the risk of toxicity and improve therapeutic outcomes using a variety of commonly used medications.

PHPS 512 Intro to the Pharm Sciences (3) This course is designed to introduce first year pharmacy students to the areas included in Pharmaceutical Sciences. Areas that will be presented are Introduction to Pharmacology, Medicinal Chemistry and Pharmacognosy. This course will allow students to successfully transition into the integrated Therapeutics sequences of courses taught in years 2 and 3.

PHPS 540 Drug Action - Part I (2) This 2 credit, 30 lecture, course will draw on the basic principles of drug design, development and drug action (medicinal chemistry and pharmacology) to provide an introduction to the basics of the pharmaceutical sciences. Some of, but not all, the areas covered include: Introduction to medicinal chemistry and pharmacology, physicochemical properties of compounds including basis organic functional group chemistry, drug targets, drug target interactions, and the architecture of drugs. Pre: First year standing in DKICP, not repeatable for credit.

PHPS 541 Drug Action - Part II (2) This 2 credit, 30 lecture, course will draw on the basic principles of drug design, development and drug action (medicinal chemistry and pharmacology) to provide an introduction to the basics of the pharmaceutical sciences. Some of, but not all, the areas covered include: ADME, structural changes during metabolism (chemistry), chemical mutagenesis, carcinogenesis, and teratogenesis, drug-drug interaction, drug allergy, drug resistance, tolerance and dependence, pharmacogenomics, and drug discovery. Pre: First year standing in DKICP

PHPS 550 Genetics in Medicine (2) This elective course will introduce the student to the basics of genetics and molecular mechanisms of inheritance as they apply to the treatment of disease and to the response of patients to drug therapy. Students will learn how genetics may lead to new strategies in drug development and treatment, how genetics may be used to predict patient response to specific treatments, and how responses are mediated. Emphasis will be placed on clinical and research applications.

PHPS 551 Substances of Abuse/Addiction (2) This elective course will provide an in-depth review of the neuropharmacology of substances of abuse including stimulants, depressants, hallucinogens and anabolic steroids. Other types of addiction will be discussed including gambling addiction. Special emphasis will be given to basic pharmacokinetic and pharmacodynamic mechanisms as they relate to the effects of the individual substances of abuse. Current theories of addiction and tolerance will be discussed.

PHPS 552 Dietary Supplements (1) A wide range of products are used in the United States and other parts of the world as aids for better health rather than as therapeutics for the treatment of disease. These products range from vitamins and minerals to herbal supplements used for a variety of purposes. In this course, the rationale for the use of these products will be examined as well as their safety and efficacy.

PHPS 553 Radioactivity in Pharmacy (1) Radiopharmaceuticals are



playing a more and more important role worldwide. Particularly, the development of radiolabeled compounds for in vivo biochemical imaging tools like PET (positron emission tomography) and SPECT (single photon emission computed tomography) increased considerably.

PHPS 554 Herb Med & Hawaiian Med Plants (1) This elective course will cover the most popular herbal medicines, their chemistry (natural products), information resources, part(s) of plant origin, use, efficacy, safety, and potential drug interactions. A small student-centered research project is assigned with approval by the chair of the department.

PHPS 555 Geographic (Tropical) Medicine (1) This elective course will cover: policy makers and public health experts who have emphasized the growing need for global health literacy and global health capacity among U. S. healthcare professionals. The Institute of Medicine defines global health as health problems, issues, and concerns that transcend national boundaries, may be influenced by circumstances or experiences in other countries, and are best addressed by cooperative actions and solutions.

PHPS 556 Drugs from Natural Sources (1) This elective course will discuss original drugs used by man for the treatment of himself and his animals were all of natural origin and in some parts of the world the natural environment still provides the majority, if not all, treatment of common and not so common ailments. of medications used on a day to day basis for the Today the natural world is still the source of over 50% of pharmaceuticals either as direct products, derivatives thereof, or as lead structures.

PHPS 558 Drug Development & Regulation (1) The mechanism by which drug products are developed and approved for use in a global market is an evolving process. Concepts of quality by design employed in other industries such as aerospace are being adapted for pharmaceuticals with the intense encouragement of major regulatory agencies.

PHPS 559 Environmental Toxicology (1) This elective is designed to introduce students to the field of environmental toxicology. This course will focus more on ecotoxicology, rather than classical toxicology, and include topics such as xenobiotics, toxic and radioactive metal, toxicity of solvents and pesticides, halogenated aromatic compounds, environmental endocrine disruptors, and pharmaceuticals and personal care products in the environment. Pre: Acceptance and second or third year standing in the College of Pharmacy.

PHPS 561 Emerging Trends Drug Discovery (1) This one credit elective course is designed to enhance the student's knowledge of emerging drug targets and related efforts in the drug discovery and development process. The emphasis of the course is on unique and emerging drug targets and is intended to reveal: how novel drugs will complement existing treatment options for various disease states. Pre: Admission to PharmD.

PHPS 562 Disc & Dev of Blockbuster Drug (1) There is a critical point and an interesting story behind each pioneering breakthrough in medicine, when decisions were made as to whether to continue or terminate the development of a promising new drug. Throughout the lectures, the historical discovery and development of representative blockbuster drugs, which changed the world and saved millions of lives, will be discussed. Pre: Acceptance and second year standing in the College of Pharmacy.

PHPS 563 Curr Adv in Neuropharmacology (1) This elective is designed to cover the current literature and latest discoveries in

neuropharmacology. Course topics are from a variety of areas and can have a clinical or basic science emphasis but must cover the most recent findings in that field. The effect of a drug on the brain is a paramount concern for pharmacists. The action of drugs on the nervous is the science of neuropharmacology. It comprises several areas of investigation of critical importance to science and medicine. Neuropharmacology involves studies aimed at understanding the mechanism by which drugs alter brain function. These include medications used to treat a wide range of neurologic and psychiatric disorders as well as drugs of abuse. Neuropharmacology uses this information to develop new medications with ever-improving efficacy and safety for diseases of the nervous system. Neuropharmacologic agents are valuable tools with which to probe the molecular and cellular basis of nervous system functioning. Pre: Acceptance and third year standing in the College of Pharmacy.

PHPS 565 Genetics & Pharm of Malaria (1) This course will provide students with a better understanding of the role that genetic variation plays in disease susceptibility at both the individual and population levels. Genetic variation of human hosts and parasites will be covered with an emphasis on co-evolution. Drug action and mechanisms of drug resistance will be explored. The contemporary role of molecular genetic techniques in the detection of genetic variation, with applications toward vaccine development, will also be covered. Pre: Second year standing in the College of Pharmacy.

PHPS 566 Emerging Trends Drug Discovery (1) This 1 credit elective course is designed to enhance the student's knowledge of emerging drug targets and related efforts in the drug discovery and development process. The emphasis of the course is on the drug development process, focusing on the phases of target identification and validation. This elective is intended to reveal: a) how novel drug modalities will complement existing treatment options for various disease states; b) scientific basis for the selection of a particular target; c) the validation of target choice through experimental methods; and, d) methods to integrate a novel target into the drug development pipeline. Pre: Acceptance into the College of Pharmacy and concurrent registration in PHPP 518.

PHPS 567 Pharmacogenetics (1) This elective is designed to introduce students to the field of pharmacogenetics, the study of the genetic basis for variation in drug response. This course will discuss the development of pharmacogenetics, genetics and epigenetics within pharmacogenetics, age-related and ethnic factors in pharmacogenetics, some genomic tools used in pharmacogenetic research, cancer and HIV treatment and pharmacogenetics, and the future of pharmacogenetics research and discoveries. Pre: Acceptance and third year in the College of Pharmacy.

PHPS 568 Antibiotic Mechanisms & Applic (1) This course will provide an exposition of the fundamental mechanisms of antibiotic action. The basic differences between prokaryotes and eukaryotes that provide for specific antibiotic targets will be emphasized. Mechanisms of antibiotics will include those that affect cell wall biosynthesis and metabolism, membrane structure and function, nucleotide biosynthesis, DNA replication and other nucleic acid transactions, transcription, and protein synthesis, as well as novel mechanisms. For each biological mechanism, the biological process, for example protein synthesis, will be reviewed to provide a framework for understanding the role of the antibiotic. Classes of antibiotics will include, but are not limited to, b-lactams, b-lactamase inhibitors, glycopeptides, isoniazid, aminoglycosides, tetracyclines, macrolides, lincomycin, streptogramins, oxazolidinones, fluoroquinolones, nitroimidazoles, rifamycins, sulfonamides, DHFR inhibitors, and polymyxins. Antibiotics from natural



sources as well as synthetic antibiotics will be addressed. In addition, mechanisms by which microbes develop antibiotic resistance will be discussed. Pre: Second or third year standing in the College of Pharmacy.

PHPS 569 Cancer Prevention (1) This course will discuss the 1) genetic risk profiles and early detection (biomarkers) and 2) the prevention of cancer by reducing risk behavior (sun exposure, alcohol consumption cigarette smoking, heavy metals in environment, physical exercise) as well as chemoprevention and vaccination against cancer-inducing viruses (HPV, HBV). Completion of this course will provide the Pharm D student with a comprehensive understanding of the current status in preventative cancer medicine. Pre: Second or third year standing in the College of Pharmacy

PHPS 570 Drugs from the Ocean (1) This course will focus on the chemical aspects of natural products from marine, microorganisms, and other sources. Natural products are normally classified according to their chemical properties, or their origins, or core structural skeletons that are related to their biosynthetic origins.

PHPS 591 Basic & Applied Toxicology (2) This course will provide a general foundation in the understanding of basic toxicological principles. The mechanisms of toxicity and contemporary treatment plans for the most common chemical, environmental and pharmaceutical agents will be presented. Additionally this course will provide an in-depth review of the neuropharmacology of substances abuse including stimulants, depressants, hallucinogens and anabolic steroids. This course will provide a general foundation in the understanding of basic toxicological principles. The mechanisms of toxicity and contemporary treatment plans for the most common chemical, environmental, household toxins and pharmaceutical agents will be presented.

PHPS 601 Integrated Pharmacotherapy I (7) In this first of a series of three courses, pathophysiology, pharmacology, toxicology, and therapeutics will be integrated into one discipline that will examine pharmacotherapy based on organ systems of the body. The course will begin with a discussion of SOAP notes and an introduction to pharmaceutical principles. Students will learn to blend their factual knowledge of the basic sciences and apply this knowledge to drug treatment of specific disorders in disparate patients. Synchronous video chats will tie in the pharmacotherapy discussed in lecture with the treatment of CNS disorders. On-site workshops will occur at various times during the semester. Pre: Acceptance into the program.

PHPS 602 Integrated Pharmacotherapy II (5) This course focuses on the pathophysiology, pharmacology, toxicology, and therapeutics of CNS disorders. Students will apply didactic learning to drug treatment in this patient population. Assessments include exams, SOAP notes, a research paper and presentation on a CNS disorder. Pre: Acceptance into the Program.

PHPS 603 Integrated Pharmacotherapy III (4) The course will begin with an overview of Toxicology, then proceed to conclude the discussion of the pharmacotherapy based on organ systems of the body by integrating the pathophysiology, pharmacology, toxicology, and therapeutics. Students will learn to blend their factual knowledge of the basic sciences and apply this knowledge to drug treatment of specific disorders in disparate patients. Additional topics discussed will be professional, legal, ethical, and interprofessional issues that relate to ethics, standards of care, laws, and regulations relevant to the practice of psychology involving psychopharmacology. During the semester students will submit three SOAP notes covering patients with both somatic and CNS related disorders. The course will culminate with each student presenting their research paper. Pre: Acceptance in the Program.

PHPS 604 Adv Psychopharmacology I (2) This course serves as the first of two capstone courses that will provide an in-depth coverage of psychopharmacology associated with the treatment of mental disorders. Students will present patient cases in weekly seminars that are based on patients seen in clinical settings from the Psychopharmacology Practicum course taught concurrently. This course will require students to demonstrate competence in medication therapy management specific to psychopathology. In addition, recent literature will be discussed that covers synergistic interactions between psychotherapy and pharmacotherapy and will examine the single practitioner vs. the split-treatment model. Pre: Acceptance into the MSCP or Clinical Psychopharmacology Certificate programs. Co-req: PHPS 607 or PHPS 609.

PHPS 605 Adv Psychopharmacology II (2) Students will present patient cases in weekly seminars that are based on patients seen in clinical settings from the Psychopharmacology Practicum courses taught concurrently. This course will require students to demonstrate competence in medication therapy management specific to psychopathology. In addition, current and future pharmacotherapy of CNS disorders will be discussed: including methodology, standards and conduct of research of psychoactive substances. Drugs classes to be covered include: antipsychotics, antidepressants, mood stabilizers, anti-anxiety agents, sedative/hypnotic agents, narcotic analgesics, drugs used to treat the cognitive and behavioral effects of Alzheimer's disease, and drugs used to treat ADHD. Pre: Acceptance into the MSCP or Clinical Psychopharmacology Certificate programs. Co-req: PHPS 607 or PHPS 609.

PHPS 606 Human Physiology (3) This course is designed to provide an in-depth overview of topics in human physiology that provide a basis for understanding of pharmacology. The course will begin with a review of basic physiological topics including the autonomic nervous, central nervous, and the cardiovascular systems. Following this will be an introduction to the discipline of pathology with an emphasis on diseases of the nervous system. This course will be composed of recorded lectures, live workshops, and synchronous video chat sessions. There is also a requirement of a research paper on a topic of physiology chosen by the student with approval of the Course Coordinator. Pre: Acceptance into the program.

PHPS 607 Psychopharmacology Practicum (2) (lecture/other) Students will participate in a psychopharmacology practicum for eight hours per week for at least one-year. The total amount of hours per year is at least 400 hours. They will be supervised by a qualified clinical practitioner with demonstrated skills and experience in clinical psychopharmacology in accordance with the prevailing jurisdictional law. Clinical supervision will be for one hour per week or one hour per eight hours of patient contact. Students will be actively involved in consultation with physicians and/or appropriately credentialed psychologists regarding prescribing of psychoactive medications. The Clinical Psychopharmacology Practicum components will be consistent with APA Recommendations. The Psychopharmacology Practicum courses will require students to demonstrate competence in medication therapy management specific to psychopathology. Students will present cases from this practicum in the Advanced Psychopharmacology I and II courses taught concurrently. At the end of the training program, a capstone competency evaluation will be completed. Students will need to arrange their own practicum according to the guidelines listed in the course syllabus. Pre: Acceptance into the program. Co-req: PHPS 604, 605.

PHPS 608 Law and Pharmacotherapy (2) This course will focus on the pathophysiology, pharmacology, toxicology and therapeutics of



infections and respiratory processes. Students will learn the issues that relate to ethics, standards of care, laws and regulations relevant to the practice of psychology involving psychopharmacology.

PHPS 609 Clinical Psychoparm Practicum (1) Preceptor is a practitioner with demonstrated experience in clinical psychopharmacology in accordance with the prevailing jurisdictional law. Advanced Psychopharmacology I and II courses taught concurrently. Pre: Enrollment in the Program. Co-Req: PHPS 604 and 605.

PHPS 701 Apoptosis & Angiogenesis (1) The course will cover mechanisms of apoptosis, or programmed cell death, and angiogenesis, or new vessel growth, and mechanisms of their regulation in different cell types. Students will learn how unbalanced angiogenic and apoptotic responses contribute to a wide variety of disease conditions, including cancer, neurodegenerative, cardiac, inflammatory and autoimmune diseases. The course will discuss experimental techniques that are used in the studies of these processes. Part of the course is devoted to approaches to development of drugs that will modulate apoptotic and angiogenic processes, and discussions of critical signaling molecules in these pathways as potential targets for drug development efforts. Pre: Approval of Major Professor.

PHPS 702 Bio Dev:Prin&Prac in Drug Disc (1) This course will explore the biological activities of secondary metabolites that are central to the process of drug discovery and development from nature. This course will emphasize the chemically-driven approach that seeks biological activities for purified compounds. Pre: Approval of Major Professor

PHPS 703 Cancer Biology (2) An introduction to cancer biology covering the processes involved in tumorigenesis (oncogenes, mutagenesis, proliferation, apoptosis, angiogenesis, invasion and metastasis). There will be discussion of active areas of interest such as cancer stem cells and the role of inflammation in cancer. Lectures will include descriptions of current therapeutics, describe efforts to design new drugs and recent clinical trials. Pre: Approval of Major Professor.

PHPS 704 Com Chem & High Throughput Tec (2) This course is designed to teach students the essential elements of combinatorial chemistry and evolving high throughput technologies in drug discovery. Combinatorial chemistry and high throughput chemistries are dynamic, rapidly evolving fields that have an important role in drug discovery. Most pharmaceutical companies have now incorporated combinatorial and high throughput platforms into their drug discovery research program. Combinatorial chemistry is a relatively new approach to the synthesis of compound libraries in a highly efficient and automated fashion. The topics of this course will include, but not limited to, combinatorial chemistry and parallel synthesis; solid-phase organic synthesis; solution-phase synthesis with solid supported reagents and scavenger resin technology; diversity-oriented synthesis; dynamic combinatorial chemistry; high throughput screening of combinatorial libraries; microwave-assisted organic synthesis; fluoros technology, fragment-based drug discovery; and automation and instrumentation. Pre: Approval of Major Professor.

PHPS 705 Designing Clinical Research (3) The course introduces the science and methodological principles of undertaking clinical research. Emphasis is placed upon clinical trials of complementary and alternative medicine therapies. Topics include research question/problem/objective, research hypothesis, research processes, types of clinical research design, strengths and weaknesses of each design, measurements, concepts of reliability and validity, sampling designs, recruitment, sample size determinations, chance and bias, threats to the internal and external validity, monitoring safety and efficacy data, statistical tests

and data management, ethical and regulatory considerations, translational research and funding agency. Students will be given the opportunity to identify a researchable idea/ question and design his/her own clinical or translational research project by preparing a written mini-proposal and then its presentation. Pre: Approval of Major Professor.

PHPS 706 Environmental Toxicology (2) This course is designed to introduce students to the field of environmental toxicology. The emphasis will focus more on ecotoxicology, rather than classical toxicology. Topics that will be covered include toxic and radioactive metal, toxicity of solvents and pesticides, halogenated aromatic compounds, environmental endocrine disruptors, and pharmaceuticals and personal care products in the environment. The environmental impact of global warming will also be addressed. Course format will include student lead discussions and presentations, lectures, and general discussion. Pre: Approval of Major Professor.

PHPS 707 Genetics in Medicine (2) This course will provide an exposition of the fundamental principles of human and medical genetics with emphasis on the genes and molecular mechanisms operating in human diseases. The contributions made by genetic variation to disease susceptibility and treatment outcomes will be discussed. Clinical cases will be used to demonstrate and reinforce the general principles of disease inheritance, pathogenesis, diagnosis, management, and genetic counseling. Students will learn how understanding genetics can lead to new strategies in drug development and treatment. A combined laboratory and seminar experience will provide students with hands-on experience and keep students abreast of recent developments in the field by presenting current literature. Pre: Approval of Major Professor.

PHPS 708 Isolation Meth for Nat Pro Dsc (2) This course will examine the theory and practice of the various types of chromatographic and non-chromatographic methods that are commonly used for the isolation of biologically active natural products from plants, microorganisms and marine organisms on scales ranging from microgram to kilograms of pure compound. Starting with simple extraction methods, the course will progress through liquid-liquid interactions to liquid-solid interactions and then to gas-solid interactions. Completion of this course will provide the student an understanding of the application of each of the techniques discussed, as well as their relative advantages and disadvantages. Pre: Approval of Major Professor.

PHPS 709 Inst Meth & Struct Elucidation (2) This course will introduce many of the pieces of spectroscopic equipment relevant to solving the three dimensional structure of organic molecules. Hands on use of the equipment to obtain spectroscopic data will be an emphasis of this course. The other emphasis of this course will be how to interpret the recorded information to enable a viable chemical structure to be proposed. During each session it is anticipated that prepared examples and examples arising from current research will be used to enhance participants' knowledge. Pre: Approval of Major Professor.

PHPS 710 Lab Animal Care, Mgt & Med I (2) This course is part one of a two part lecture series and is designed to introduce students to the care and use of laboratory animals in accordance with the National Research Council and the Institutional Animal Care and Use Committee (IACUC). Included in this course are alternatives to traditional use of live animal species and the laws, regulations and guidelines important to laboratory animal research. Emphasis will be placed on the use of rats and mice, rodent anesthesia and analgesia and rodent surgery. Pre: Approval of Major Professor.

PHPS 711 Lab Animal Care, Mgt & Med II (2) This course is part two of a two part lecture series and is designed to introduce students to the care and use of laboratory animals in accordance with the National



Research Council and the Institutional Animal Care and Use Committee (IACUC). Included in this course is a review of Laboratory Animal Care, Management and Medicine I. Emphasis will be placed on rabbits, Mongolian gerbils, guinea pigs, Syrian hamsters, dogs and cats, and primates. Pre: Approval of Major Professor.

PHPS 712 Medical Cell Biology (2) This course focuses on the scientific aspects of cell biology important to graduate students with primary focus on eukaryotic cell biology. The course will provide a basis to general cell biology principles in the context of organ systems and human and animal disease. Clinical cases will be used to build a framework for the basic concepts of medical cell biology and help reinforce conceptual understanding. Pre: Approval of Major Professor.

PHPS 713 Organic Medicinal Chemistry I (2) Organic Medicinal Chemistry I provides the chemical and structural basis for the interdisciplinary field of therapeutics related to diuretics, autonomic nervous system and cardiovascular systems. The topics will include the drug discovery and development process of these important medicines, the chemical and structural basis for the pharmacological and therapeutic action drugs, structural classifications, molecular mechanism of actions, structure activity relationship and how the physicochemical properties of drug molecules affect their route of administration stability, and absorption, distribution, metabolism and excretion. Synthesis of important molecules from each drug class will also be presented. Pre: Approval of Major Professor.

PHPS 714 Organic Medicinal Chemistry II (2) Organic Medicinal Chemistry II provides the chemical and structural basis for interdisciplinary field of therapeutics related to diabetes, thyroid/pituitary disorders, hormones/ osteoporosis/adrenal, asthmas/COPD, and infectious diseases. The topics will include the drug discovery and development process of these important medicines, the chemical and structural basis for the pharmacological and therapeutic action of drugs, structural classifications, molecular mechanism of actions, structure activity relationship, and how physicochemical properties of drug molecules affect their route of administration, stability, and absorption, distribution, metabolism and excretion. Synthesis of important drug molecules from each drug class will also be presented. Pre: PHPS 713.

PHPS 715 Organic Medicinal Chem III (2) Organic Medicinal Chemistry III provides the chemical and structural basis for interdisciplinary field of therapeutics related to antiviral agents, OA/RA/Gout, migraine, CNS agents including Parkinson/Alzheimer/Seizure. The topics will include the drug discovery development process of these important medicines, the chemical and structural basis for pharmacological and therapeutic action of drugs, structural classifications, molecular mechanisms of actions, structure activity relationship, and how the physicochemical properties of drug molecules affect their route of administration, stability, and absorption, distribution, metabolism and excretion. Synthesis of important drug molecules from each drug class will also be presented. Pre: PHPS 714.

PHPS 716 Organic Medicinal Chemistry IV (2) Organic Medicinal Chemistry I provides the chemical and structural basis for the interdisciplinary field of therapeutics related to gastro-intestinal/genitourinary, chemotherapy, pain management, radiopharmaceuticals. The topics will include the drug discovery and development process of these important medicines, the chemical and structural basis for the pharmacological and therapeutic action of drugs, structural classifications, molecular mechanism of action structure activity relationship, and how the physicochemical properties of drug molecules affect their route of administration, stability, and absorption, distribution, metabolism and excretion. Synthesis of important drug molecules from

each drug class will also be presented. Pre: PHPS 715.

PHPS 717 Med Chem CNS Drugs & Develop (2) The course will focus on modern aspects of the design and development of compounds for the treatment of central nervous system disorders, and in addition on the development of PET (positron emission tomography) and SPECT (single photon emission computed tomography) tracers to monitor functional processes in vivo in the human body. Important properties and steps for profiling a drug to enhance the access to the brain will be discussed. The course will start with an overview about CNS targets and pharmacophore models for diverse compound families and will provide synthetic aspects of important drug templates. The production of relevant radionuclides, precursor and radiochemical synthesis, quality control and radiopharmacological aspects (in vitro, ex vivo, in vivo experiments) will be discussed. Pre: Approval of Major Professor.

PHPS 718 Lab Visits & Supervisor Select (1) (lab) This one credit course is designed to enable all PhD candidates time to become familiar with the research being undertaken by possible dissertation supervisors. Each candidate will visit with and interview at least six possible dissertation supervisors and discuss with them dissertation research projects they will be offering. As required, individual candidates may want to spend a longer period in the laboratory of potential dissertation supervisors to actual gain some hands on experience as to what is going on in given laboratory to assist them in making their decision about whose group they would like to join. At the end of the interview process each candidate will submit a three page paper detailing the overall process they went through to eventually select a dissertation supervisor and dissertation topic. Pre: admission into the PhD program in Pharmaceutical Science.

PHPS 719 Mol Biol Tech & Appl-Hlth Care (2) This course will provide students with basic and advanced information regarding DNA, RNA, and proteins, and describe current available techniques used in detecting genetic variation. Potential applications of these techniques to disease screening, drug resistance, and drug discovery and development will be reviewed. Isolation and purification of DNA samples from different cell types and tissues, DNA concentration techniques, restriction digestion and analysis, ligation of DNA to create recombinant molecules and designer genes will be discussed. Students will be provided with access to reference texts and selected online peer-reviewed articles in .pdf format by the instructor. The instructor will conduct lectures for sessions 1 and 15 and provide background materials. Each student will select a topic from the remaining sessions (2-14) and will lead the discussion for that selected topic on the assigned day. Students may work in pairs (or more if necessary), depending on student enrollment. Students will learn to retrieve information from a variety of sources, comprehend and critically evaluate it, and subsequently lead a discussion on the selected topic. There will be no laboratory component. Pre: Approval of Major Professor.

PHPS 720 Nat Prod & Cancer Chemoprevent (2) The course will concentrate on the molecular aspects of chemoprevention as a viable strategy in the fight against cancer. The treatment of many diseases is dependent on natural products. Over half of the currently approved anti-cancer and anti-infective drugs are of natural origin. Active leads from different structural classes such as alkaloids, flavonoids, coumarins, and phenazines will be described. Since carcinogenesis is a multistage process, different approaches to monitor inhibition of cancer initiation, promotion and progression will be characterized. The course will provide the student with an understanding of detailed aspects of research processes leading to the discovery of promising natural as well as synthetic and semi-synthetic chemopreventive compounds. Special attention will be given to ensure students are aware that the science of



chemoprevention research is well established and offers great research opportunities. Pre: Approval of Major Professor.

PHPS 721 Neuropsychopharmacology (2) This course is designed as an intense, doctoral level class that amalgamates the disciplines of neuroscience, animal behavior, neurochemistry, and pharmacology. The course will cover the major topics of neuropharmacology such as cellular and molecular foundations of neuropsychopharmacology, behavioral pharmacology, receptor biology, major neurotransmitter systems and antidepressants, anxiolytics, antipsychotics, drugs of abuse, and cognitive and movement disorders. Further, this course will integrate some of the principle topics in behavioral neuroscience, including aggression, fear, stress, memory, internal state, and evolution of sex and mating systems, communication, feeding behavior, anti-predator behavior, and the evolution of behavior. Course format will consist of lectures and exams, student presentations, and require a capstone research review paper. Pre: Approval of Major Professor.

PHPS 722 Pharmaceutical Marketing (2) This course has two major areas of emphasis in pharmaceutical marketing. The first part of the course will introduce the basic theory of pharmaceutical marketing and creative thinking behind product development. Students will learn the basic principles of consumer behavior and evaluation, environmental framework, social, and various other marketing theories to provide an understanding of how these concepts can influence product development in laboratories or drug industries. This section will also integrate these principles and concepts to understand issues related to the distribution and design of an innovative drug product development. The second part of the course is intended to use the principles and concepts learned in the first part to effectively develop a market plan for an innovative product. Pre: Approval of Major Professor.

PHPS 723 Pharmacognosy (2) Pharmacognosy is a highly interdisciplinary field which is one of five major areas of pharmaceutical education. Its scope includes the study of the physical, chemical, biochemical and biological properties of drugs, drug substances, or potential drugs or drug substances of natural origin as well as the search for new drugs from natural sources. This course will focus on chemical aspects of Pharmacognosy. Natural products are normally classified according to their biosynthetic origins and chemical properties. Thus, the objective of the course is to familiarize students with an introduction to and classification of natural products (terpenoids, alkaloids, phenylpropanoids and allied phenolic compounds). The basic metabolic pathways and the origin of secondary metabolites such as the shikimic acid pathways, the acetate-malonate pathway, the mevalonate pathways will be discussed. It is a core course of Pharmacognosy and enable students to use this knowledge in the future to explore Advanced Pharmacognosy. A special emphasis will be placed on how chemical structure affects physiological function of various natural products. Pre: Approval of Major Professor.

PHPS 724 Pharmacology I (3) In this 3 credit, 45 hour lecture course, students will learn pharmacology of specific drug groups. The course uses organ system approach. This course will begin with a discussion of diuretics followed by autonomic nervous system pharmacology and conclude with a discussion of drug groups used for the treatment of cardiovascular disorders. In the autonomic pharmacology unit, students will learn about adrenergic and cholinergic drugs that possess agonist and/or antagonist activities at different types and subtypes of receptors that are present in autonomic nervous system and other tissues in the body. Cardiovascular pharmacology will include drug groups that are used in the management of hypertension, hyperlipidemia, heart failure, disorders of coagulation, cardiac arrhythmias and ischemic heart disease. Pre: Approval of Major Professor.

PHPS 725 Pharmacology II (3) In this 3 credit, 45 hour lecture course, students will learn pharmacology of specific drug groups. The course uses organ system approach. This course will begin with a discussion of endocrine disorders pharmacology followed by pharmacology of asthma and chronic obstructive pulmonary disease (COPD), and conclude with a discussion of drug groups used for the treatment of infectious diseases. In the endocrine pharmacology unit, students will learn about drug groups that are used in the treatment of diabetes, thyroid and pituitary disorders, osteoporosis, as well as corticosteroid drugs. Respiratory pharmacology unit will include pathophysiology and pharmacology of drug groups that are used in the treatment of asthma and COPD. Infectious disease pharmacology unit will include discussions of antibacterial, antifungal, antiviral, antiprotozoal and antihelminthic drugs. Pre: Approval of Major Professor.

PHPS 726 Pharmacology III (3) This graduate-level course introduces the student to the basis of disease and pharmacology of drugs used to treat viral infections, osteoarthritis, rheumatoid arthritis, gout, and CNS disorders. Course material covers principles of drug action including drug-receptor interactions and mechanism of action, adverse effects, absorption, distribution, metabolism, elimination and pharmacogenomics. The focus of CNS lectures include therapeutics used to treat migraine, schizophrenia, depression, bipolar disorder, attention deficit hyperactivity disorder, sleep disorders, anesthesia, and neurodegenerative diseases. Students will be assigned a scientific article to read in advance of "Special Topics" lectures. For five of these assignments, the student will also be required to write a one-page summary of the article and its main findings. Pre: PHPS 725.

PHPS 727 Pharmacology IV (3) This graduate-level course introduces the student to the basis of disease and pharmacology of drugs used to treat gastrointestinal and genitourinary disorders, fertility and contraception, as well as cancer and pain management. Course material covers principles of drug action including drug-receptor interactions and mechanism of action, adverse effects, absorption, distribution, metabolism, elimination and pharmacogenomics. Students will be assigned a scientific article to read in advance of "Special Topics" lectures. For five of these assignments, the student will also be required to write a one-page summary of the article and its main findings. Pre: PHPS 726.

PHPS 728 Phytochem - Terrestrial Plants (2) This course will survey the chemical structures, spectroscopic properties, biosynthesis/biogenesis and biological activities of a wide range of major and minor chemical classes occurring in terrestrial plants. These compound classes will include alkaloids, terpenoids, steroids, coumarins, flavonoids, tannins and other polyphenols, pyrones, quinones, phenylpropanoids, lignans, depsides, depsidones, fats, waxes and lipids among others. Completion of this course will provide the student with a basic familiarity with the kinds of chemical structures found in plants enabling her/him to embark on a career in phytochemical research. Pre: Approval of Major Professor.

PHPS 729 Receptor Theory & Signal Trans (2) This course is designed to provide the student with knowledge of the historical and practical aspects of receptor theory as it applies to drug action, and to introduce how drug actions are mediated through signal transduction cascades, based on specific examples. Lecture topics include: models for receptor-drug interactions; methods for receptor identification; structure-receptor analysis of GTP-binding proteins and ligand-operated ion channels; receptor tyrosine kinases; nuclear receptors; and receptor-induced signal transduction cascades. Laboratory component of the course is designed to complement lecture topics. Pre: Approval of Major Professor.



PHPS 730 Sample Coll, Documnt & Presrv (1) Participants in this course will learn strategies for sample collection from both the terrestrial and marine environments and for both macro- and micro-organisms. The course will cover permit application, sample collection, and the various ways in which different sample types are preserved for long term storage and how taxonomic voucher specimens are prepared. Pre: Approval of Major Professor.

PHPS 731 Toxicants and Toxicity (3) This course will provide a general foundation in the understanding of basic toxicological principles. The mechanisms of toxicity and contemporary treatment plans for the most common chemical, environmental and pharmaceutical agents will be presented. Additionally, this course will provide an in-depth review of the neuropharmacology of substances of abuse including stimulants, depressants, hallucinogens and anabolic steroids. Other types of addiction will be discussed. Special emphasis will be given to basic pharmacokinetic and pharmacodynamic mechanisms as they relate to the effects of the individual substances of abuse. Current theories of addiction and tolerance development will be discussed. Pre: Approval of Major Professor.

PHPS 732 Tox Plant Nat Prod-Therap Pot (2) This course will draw on the basic principles of organic chemistry and biology to provide an understanding of the biosynthesis of toxic natural products in plants, their bioassay-directed fractionation and isolation, structural identification, and mode of action in mammalian systems. Toxins discussed will be those responsible for hepatotoxicity, teratogenicity, cardiotoxicity, lysosomal storage diseases, and reproductive defects. Students will integrate these principles to understand the importance of dose in discriminating between toxicity and therapeutic action, as well as the role of natural products as lead compounds in drug development. The major classes of toxic compounds occurring in plants will be discussed, with particular reference to those occurring in Hawaii. Discussions of proper experimental design, plant sampling and identification, and structural classification will carry over into the laboratory portion of the class. Students will become familiar with procedures for plant collection, extraction and isolation of pure compounds, and structural identification. Pre: Approval of Major Professor.

PHPS 733 Aerosol Physics in Medicine (1) The course is structured in two equal halves. Part 1 focuses on fundamentals concerned with aerosol behavior and assessment of orally and nasally inhaled products (OINDP). Part 2 applies the knowledge gained in the first part to develop an understanding of the current regulatory science and newer methods of assessment to provide more meaningful data to prescribing clinicians and the patients themselves.

PHPS 734 Biotechnology Laboratory (2) (lab) Biotechnology continues to play a greater and greater role in pharmacy. Health conditions can be treated with DNA vaccines, RNAi, monoclonal antibodies, recombinant proteins including peptide hormones, etc. This course will provide hands-on experience with biotechnology techniques. Techniques will be covered from DNA manipulations to expression of recombinant proteins.

PHPS 735 Cell Cycle Progression (2) (lab) Lecture and mammalian cell culture lab with modern methodological approaches for studying apoptosis (programmed cell death) and the cell cycle. Relationships between the cell cycle and apoptosis in understanding pathological conditions and identifying new therapeutic strategies. Pre: Enrollment in DKICP PhD program.

PHPS 749 Overview of Pharm Sciences I (2) Drug discovery, basic principles of drug design, development and action to provide an

introduction to the pharmaceutical sciences. Among topics are an introduction to medicinal chemistry, drug targets and interactions, and the architecture of drugs. Pre: Enrollment in DKICP PhD program.

PHPS 750 Overview of Pharm Sciences II (2) Drug design, development and action to provide an introduction to the pharmaceutical sciences. Among the topics are ADMC, structural changes during metabolism (chemistry), chemical mutagenesis, carcinogenesis, and teratogenesis, drug-drug interactions, drug allergy, drug resistance, tolerance and dependence, pharmacogenomics, and drug discovery. Pre: Enrollment in DKICP PhD program.

PHPS 751 Biochemistry I - Biomolecules (3) Basic foundation for medicinal biochemistry, pharmacology, including the structure and function of amino acids, proteins, nucleic acids, and lipids. Biological processes including signal transduction, DNA, RNA, and protein synthesis for an understanding of disease states and drug action. Pre: Enrollment in DKICP PhD Program.

PHPS 752 Biochemistry II - Metabolism (3) Metabolism and the interrelationships.integration of metabolic processes, including glycolysis, the tricarboxylic acid cycle, gluconeogenesis, and the synthesis and breakdown of biomolecules. Metabolic control and regulation of pathways will be emphasized. Clinical correlations and metabolic diseases will be examined. Pre: Enrollment in DKICP PhD program.

PHPS 755 Advanced Pharmaceutics I (3) This course will draw on the basic principles of chemistry, biology and physics to provide an understanding of how drug physico-chemical properties at the molecular and macroscopic assembly level are manifest in dosage form properties and performance. Students will integrate these principles to understand issues in the rational selection of dosage forms and drug delivery systems as well as their role in drug product development. Discussions of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of the class. Students will become comfortable with equipment; procedures and records used in the compounding of various dosage forms, and will practice clinical dispensing skills vital to shaping a truly professional pharmacist. Pre: Approval of Major Professor.

PHPS 756 Advanced Pharmaceutics II (3) This course will draw on the basic principles and developmental aspects of drug formulation to deliver the active pharmaceutical ingredient through biological membranes to exert the therapeutic effect at site of action. Understanding of physicochemical properties of active pharmaceutical ingredient and additives or excipients, pharmacological properties and processability of drug delivery systems can be utilized for optimal performance of the drug delivery systems. Understanding of active pharmaceutical ingredient and additive or excipients physico-chemical properties at the molecular and macroscopic assembly level are manifest in dosage form properties and performance. Students will integrate these principles to understand issues in the rational choice of dosage forms and drug delivery systems as well as their role in drug product development. Discussions of Good Manufacturing Practices and Good Compounding Practices will carry over into the lab portion of the class. Students will become familiar with procedures and records used in the compounding of various dosage forms, and will practice clinical dispensing skills vital to shaping a truly professional pharmacy professional scientist. Pre: Enrollment in the College of Pharmacy Pharmaceutical Sciences PhD program.

PHPS 780 Research Seminar (1) The transfer of information in the pharmaceutical sciences is often achieved through the presentation of seminars. Students will prepare and present the annual research seminar



required for partial fulfillment of the PhD degree. Pre: Enrollment in the College of Pharmacy PhD program. Course may be repeated for credit.

PHPS 800 Resrch Dissertation-Phrm Sci (1-15) This course outlines the conduct of the dissertation project and preparation of the actual dissertation document for the Doctoral level student. The dissertation is a major undertaking that is a demonstration of mastery of a field of research in the Pharmaceutical Sciences and should represent an original and significant contribution to the field. The dissertation document will usually be no less than 150 pages in length and be based on a research project defined by the candidate's Primary Advisor. The project may take a variety of forms, for example, be quantitative, qualitative, or theoretical, the main criteria being that at the completion of the research the candidate can demonstrate mastery of and excellence in their chosen area of research. Pre: Successful completion of the first, qualifying year of the PhD program progressing to Candidacy, and selection of a Primary Advisor, a Dissertation research topic and a Dissertation Committee.

PHPS x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

PHPS x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.

Additional Courses

Also see the [PHPS undergraduate-level courses](#).

Tropical Conservation and Environmental Science (CBES) Graduate Courses for the Master of Science in TCBS

College of Arts and Sciences

CBES 500 Master's Plan Studies (1) (other) Used for continuous enrollment purposes. Must be taken as CR/NC. Does not count toward fulfillment of degree requirements. Pre: Master's or Doctoral candidacy and instructor's consent.

CBES 600 Conservatn Biol & Environ Sci (3) Fundamental principles of ecology, evolution, and environmental sciences, with an emphasis on the conservation, management and restoration of organisms and ecosystems. Discussion will include the physical and biological factors that affect and shape tropical organisms and ecosystems: biodiversity, biogeography, climate, genetics, nutrient cycling, population viability, reproductive systems and topography. Tropical organisms and ecosystems world-wide will be compared with an emphasis on Hawaii.

CBES 601 CBES Field & Laboratory Method (3) A practical course in laboratory and field methods and techniques in conservation biology and environmental sciences. Students will be introduced to methods used for studying, monitoring and experimenting upon animals and plants in a diversity of habitats. Emphasis is placed on the choice of techniques for data collection, followed by rigorous analysis of results with the application of appropriate statistical analyses. Students will also become familiar with the biological and environmental diversity of the Island of Hawaii. The information collected will be more fully analyzed in CBES

605.

CBES 602 Research Seminar in TCBS (1) (other) A research seminar in tropical conservation biology and environmental science. Presentations will focus on research related to conservation biology and environmental science. Following the seminar there will be a question and answer discussion session with the seminar speaker and students. Students will also give a short presentation of their research or internship projects. These seminars will be critiqued by the instructor and the students for both the content of the project and presentation style.

CBES 603 Natural Resource Mgt Seminar (1) (other) Seminars given by TCBS faculty, visiting scientists from other universities, federal, state and non-profit agency personnel working in fields related to TCBS. The seminars will be focused on natural resource management issues. Following the seminar there will be an open question and answer discussion session with the seminar speaker and the students. Student will also give short presentations of their research or internship projects. These seminars will be critiqued by the instructor and the students for both the content of the project and presentation style.

CBES 609 Theory/Apps Landscape Ecology (3) (lecture/other) This course explores the theory and application of landscape ecology as a framework for landscape research, analysis and management. Students will become well-versed in concepts, methods and applications of landscape ecology through reading classic and contemporary literature and performing independent research. Topics will include: characterizing landscape patterns and dynamics, application of landscape management, and emerging areas of research.

CBES 610 Environmental Chem Analysis (3) Basic concepts of chemical measurements in environmental media. Analysis in environmental matrices with emphasis on water, soil, air and tissue. Topics include basics of calibration and measurement, sample collection, sample lability, chemical interferences, matrix effects and reporting analyses of chemicals in the environment. Pre: CHEM 161, 161L, 162, 162L, 241, 330, 330L. Recommended: CHEM 331.

CBES 615 Global Environmental Change (3) Discusses the natural and anthropogenic processes regulating the function of the Earth system. The history and mechanisms of global change processes and the means by which human activities alter Earth system function at local to global scales will be examined, along with potential consequences of and solutions to global change. Focuses on interrelationships of the atmosphere, hydrosphere, geosphere and biosphere. Provides students with an understanding of the role that multidisciplinary science and technology have on research of the Earth system.

CBES 620 Rrsch Techniq Molecular C Biol (3) (lab) Major advances in molecular biology important to conservation studies are examined. Molecular techniques that are applied to conservation studies are performed, including PCR, RFLP, AFLP, DNA sequencing, and microsatellite analysis. Data analysis is examined, including a number of popular genetics software packages that enable pairwise comparisons of large data sets and the construction of genetic distance matrices and networks. Pre: BIOL 357L and 481L or equivalent, or instructor's consent.

CBES 630 Nearshore Monitoring & Analyis (3) (lecture/lab) Theoretical and practical planning and implementation of data collection and analysis of the intertidal and shallow subtidal marine environments. Techniques include measuring geological, chemical, and physical environments and estimating the abundance and diversity of organisms. Pre: MARE 350 & 350L, CBES 610; or instructor's consent.

CBES 633 Biodiversity (3) (lecture/other) This lecture and discussion



course will examine the primary theories and evidence for the origin and maintenance of species richness in hyper-diverse communities, using tropical rainforests and/or coral reefs as model systems. Topics will include historical biogeography, speciation, coevolution, neutral vs. non-neutral models for the maintenance of species richness, and biodiversity conservation. Methodological approaches will also be discussed.

CBES 635 Physical Environment of Ecosys (3) Examination of the influences of climate, hydrology, geology and soils on terrestrial and aquatic ecosystems. Emphasis on mechanisms of change, anthropogenic impacts and monitoring networks. Pre: GEOL 100 or 111 or GEOG 101; BIOL 281 or GEOG 309 or equivalent; or instructor's consent.

CBES 640 Adv Remote Sensing/Digital Ima (3) (lecture/lab) Digital image processing of satellite-derived remotely sensed data for earth resource analysis and applications. Specific applications include image enhancement, classification, post classification analysis, special transformations, and multi-temporal analysis for land cover change detection. Pre: GEOG 470 or equivalent; or instructor's consent.

CBES 642 Comm. Science in K-12 Settings (2) For graduate students interested in improving their ability to communicate their scientific knowledge and research by designing activities and teaching in local schools or community events. The course combines inquiry-based science teaching methods with teaching experience in a local school classroom or community event. Pre: TCBES Cohort Acceptance. This course is dual listed with BIOL 442

CBES 645 Apply Social Sci to Marine/Coa (3) Social science methods for profiling natural resource dependent communities and assessing the social and economic impacts of ecosystem management and regulation. Marine communities and fisheries in the Pacific region, with some discussion of terrestrial resource management. Relevant laws, policies and management agencies. Public input, best science, realities of management conflict and compromise. Social impact assessment, case studies and public and professional roles in management.

CBES 650 Oceanographic Monitoring & Ana (3) (lecture/lab) Theoretical and practical planning and implementation of data collection and analysis of neritic and pelagic marine environment from an oceanographic vessel platform. Techniques include measuring geological, chemical and physical nearshore properties; estimating the abundance and diversity of plankton, nekton, and benthos; and use of modern data recording and analyzing systems. Pre: MARE 350, 350L, and CBES 610 or instructor's consent.

CBES 655 Ecological Physiology (3) Physiological adaptations to environmental variation including physiological and biochemical mechanisms for food acquisition and digestion, thermal energetics, respiratory gas exchange, activity metabolism and osmoregulation.

CBES 657 Vegetation of the Hawaiian Isl (3) Develops a methodology for understanding processes shaping major types of vegetation in Hawaii. Intensive plant taxonomy and identification, field methods in surveying and monitoring vegetation, and application of these to overall research design.

CBES 660 Molecular Ecology (3) (lecture/other) This lecture and discussion course will examine the molecular genetic applications in current ecological research. Topics will include the fundamentals of molecular biology as they pertain to ecological systems. Theoretical background of modern molecular genetic techniques will also be discussed. The format of the course will include student-led seminar discussions of recent primary literature in molecular ecology. Some genetics background necessary.

CBES 665 Environmental Toxicology (3) Biochemical basis for toxicity. Chemical distribution and fate in the body; molecular mechanisms and effects of toxic action. Emphasis on environmental toxicants. Pre: Upper division courses in biochemistry and physiology, or instructor's consent.

CBES 670 Geog Info Sys & Visualization (3) (lecture/other) Key principles and concepts of Geographic Information Systems (GIS) that includes: a theoretical foundation, software training, real-world applications and techniques in visualization of spatial information relevant to conservation biology and environmental science research. This course is dual listed with GEOG 480.

CBES 675 Conservation Genetics (3) Basic concepts of population genetics and molecular evolution as it applies to conservation biology. Specific topics include population dynamics and inbreeding depression, and population genetic structure related to ecological parameters and requirements of an organism.

CBES 677 Quantitative Ecology (3) This course will consist of weekly lectures and computer-based in-class exercises. It will explore multiple regression, General Linear Models including Logistic and Poisson regression, Mixed effects models, and various other analysis of variance approaches, including repeated measures designs. Diagnostics and model selection procedures such as Akaike's Information Criteria (AIC) will be strongly emphasized. By the end of the course, students should have a good general understanding of the ways to design, analyze, and model many types of biological datasets.

CBES 680 Adv Stats Analysis & Rsrch Des (3) An advanced examination of statistics and research design in conservation biology and environmental science. Emphasis on specific applications and underlying assumptions, design of experiments, and observational schemes for research project. Extensive computer analysis is employed, including MINITAB and SAS statistical software. Pre: CBES 610 or instructor's consent.

CBES 681 Spatial Data Analysis/Modeling (3) (lecture/other) CBES 681 is an advanced course in spatial analysis and modeling specific to Geospatial Information Science. This course will emphasize the correct application of Geospatial software tools along with the underlying theories and opportunities for applied learning in terrain modeling, suitability modeling, predictive ecosystems mapping and data visualization. Further knowledge and skills will be developed by customization of GIS applications through interface design and automation of geospatial analysis procedures. This course is dual listed with GEOG 481.

CBES 685 Behavioral Ecol & Evol Analyse (3) Principles of behavioral ecology and evolution with a focus on conservation biology. Research techniques in behavioral ecology related to analyzing populations in geographically and age-structured populations. The importance of reproductive strategies, habitat selection, foraging behavior, parental care, social organizations, and the importance of migration and movement patterns on the regulation of population sizes and evolution. Population, quantitative and species genetics as it relates to evolution, speciation, and biodiversity. Pre: CBES 610 or consent of instructor.

CBES 690 Internship (3) (other) Internship for Plan B Masters students in TCBES with a federal, state or non-government agency with projects in Hawai'i or other Pacific Islands. Internship project will be developed and carried out in consultation with the host agency and the approval of the TCBES graduate committee. Development of the internship is formalized through a written proposal, periodic written



reports and meetings with the graduate advisor and host agency representative. Final report and oral presentation are required at the end of the internship.

CBES 700 Thesis Research (1-6) (other) Research in conservation biology and environmental sciences for Plan A Master's students.

CBES x94 Special Topics in Subject Matter (Arr.) Special topics chosen by the instructor. Course content will vary. May be repeated for credit, provided that a different topic is studied. Additional requirements may apply depending on subject and topic.

CBES x99 Directed Studies (Arr.) Statement of planned reading or research required. Pre: instructor's consent.