

University of Hawai'i  
**Windward Community College**  
Course Catalog 2017 – 2018



# Academic Calendar 2017–2018

## 2017 Fall Semester

April 10	Fall Registration Begins
July 21	Payment Deadline for Fall Tuition/Fee by 4:00 p.m.
August 1	Deadline for Fall 2017 Admissions Application
August 14	Faculty Duty Day
August 18	Holiday: Statehood Day
August 21	Fall Semester Begins: First day of Instruction
August 21-25	Late Registration (\$30 late fee) and Add/Drop Period (\$5 in-person fee)
August 25	Last Day for 100% Tuition Refund <sup>1</sup>
August 25	Last Day for 100% Student Fees Refund <sup>1</sup> (complete withdrawal from ALL classes)
September 4	Holiday: Labor Day
September 12	Last Day to Withdraw without "W" grade and 50% Refund <sup>1</sup>
October 30	Last Day to Withdraw with "W" grade <sup>1</sup>
October 30	Last Day to Change to CR/NC Option or select Audit <sup>1</sup>
October 30	Last Day to make-up Spring/Summer "I" Grade <sup>1</sup>
November 10	Holiday: Veterans Day
November 23	Holiday: Thanksgiving Day
November 24	Non-Instructional: Thanksgiving Recess
December 7	Last Day of Instruction
December 7	Last Day to Certify/Apply for Fall Graduation
December 9-15	Exam Period
December 15	End of Fall Semester
December 19	Grades Due by 4 p.m.

## 2018 Spring Semester

November 6	Spring Registration Begins
December 8	Payment Deadline for Spring Tuition/Fee
December 15	Deadline for Spring 2018 Admissions Application
January 1	Holiday: New Year's Day
January 8	Spring Semester Begins: First day of Instruction
January 8-12	Late Registration (\$30 late fee) and Add/Drop Period (\$5 in-person fee)
January 12	Last Day for 100% Tuition Refund <sup>1</sup>
January 12	Last Day for 100% Student Fees Refund <sup>1</sup> (complete withdrawal from ALL classes)
January 15	Holiday: Martin Luther King Jr. Day
February 1	Last Day for 50% Tuition Refund <sup>1</sup> (complete withdrawal from ALL classes)
February 1	Last Day to Withdraw without "W" grade and 50% Refund <sup>1</sup>
February 19	Holiday: Presidents' Day
March 2	Non-Instructional: Excellence in Education
March 26-30	Non-Instructional: Spring Recess
March 26	Holiday: Prince Kuhio Day
April 2	Last Day to Withdraw with "W" grade <sup>1</sup>
April 2	Last Day to Change to Credit/Noncredit Option or select Audit <sup>1</sup>
April 2	Last Day to make-up Fall "I" Grade <sup>1</sup>
March 30	Holiday: Good Friday
April 16	Commencement Program Deadline
May 2	Last Day of Instruction
May 2	Last Day to Certify/Apply for Spring Graduation
May 5-11	Exam Period
May 11	End of Spring Semester
<b>May 11</b>	<b>Commencement</b>
May 14	Last Faculty Duty Day
May 15	Grades Due (by 4 p.m.)

## 2018 Summer Sessions

May 21-June 29	Summer Session I
July 2-August 10	Summer Session II

## Important Contacts

### Academic Advising and Counseling

235-7413  
Hale 'Ākoakoa 212  
[windward.hawaii.edu/Counseling\\_Advising](http://windward.hawaii.edu/Counseling_Advising)

### Admissions & Records Office

235-7432  
Hale Alaka'i 112  
[windward.hawaii.edu/Admissions\\_Records](http://windward.hawaii.edu/Admissions_Records)

### Business Office (Cashier)

235-7411  
Hale Alaka'i 114  
[windward.hawaii.edu/Business\\_Office](http://windward.hawaii.edu/Business_Office)

### Bookstore

235-7418  
Hale 'Ākoakoa 160  
[windward.hawaii.edu/Bookstore](http://windward.hawaii.edu/Bookstore)

### Disabilities Services

235-7448  
Hale 'Ākoakoa 213  
[windward.hawaii.edu/Disabilities](http://windward.hawaii.edu/Disabilities)

### Financial Aid Office

235-7449  
Hale Alaka'i 107  
[windward.hawaii.edu/Financial\\_Aid](http://windward.hawaii.edu/Financial_Aid)

### Library Learning Commons

235-7436  
Hale La'akea  
[windward.hawaii.edu/Library](http://windward.hawaii.edu/Library)

### Placement Testing – The Testing Center

235-7498  
Hale La'akea 228  
[windward.hawaii.edu/Testing\\_Center](http://windward.hawaii.edu/Testing_Center)

### TRiO Student Success Services

235-7487  
Hale Kako'o 116  
[windward.hawaii.edu/TRiO](http://windward.hawaii.edu/TRiO)



UNIVERSITY of HAWAII  
**WINDWARD**  
COMMUNITY COLLEGE

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This catalog provides general information about Windward Community College, its programs and services, and summarizes those major policies and procedures relevant to the student. The information contained in this catalog is not necessarily complete. For further information, students should consult with the appropriate unit. This catalog was prepared to provide information and does not constitute a contract. The College reserves the right to, without prior notice, change or delete, supplement or otherwise amend at any time the information, requirements, and policies contained in this catalog or other documents.

Hearing impaired individuals desiring information may contact The College by using the Telecommunication Device for the Deaf (TTY) relay service at 808-643-8833.

*Windward Community College does not discriminate on the basis of age, race, sex, color, religion, national origin, or disability in its programs and activities. For more information or inquiries regarding these policies, please contact Vice Chancellor Brian Pactol, Title IX coordinator, at 235-7403, [pactol@hawaii.edu](mailto:pactol@hawaii.edu), and/or Karen Cho, EEO/AA coordinator, at 235-7404, [kcho@hawaii.edu](mailto:kcho@hawaii.edu).*

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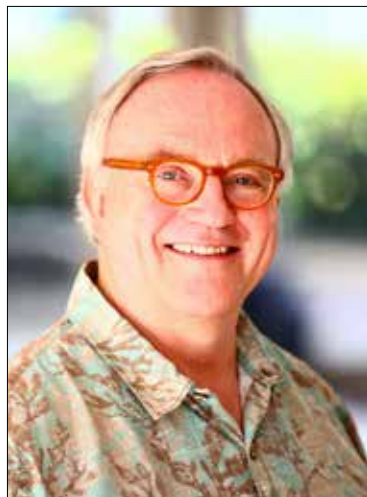
Colette Higgins  
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Amy Rozek  
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*Vice Chancellor for Administrative Services*

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*Director for Career & Community Education*



**Chancellor Douglas Dykstra**



UNIVERSITY of HAWAII  
**WINDWARD**  
COMMUNITY COLLEGE

*Aloha,*

Welcome to the Windward community's own college, a campus of superlative beauty set before the backdrop of the majestic Ko'olau Mountain range. I am honored and privileged to serve as chancellor of a college that I trust you will find as friendly and engaging as I have. Its values, vision and purpose bespeak a campus community that will take you from where you are and place you on a path to where you want to be.

Our faculty and staff are dedicated, friendly and supportive to help you proceed to your goals. The range of credit and non-credit courses and programs, as well as the campus facilities and services to the community make this a gemstone of educational and cultural life for our Windward district communities. Our range of programs will prepare you to transfer to a four-year college, help you to accentuate a field of specialization and/or prepare you for immediate employment. Our campus and our facilities provide the space to learn, to grow, and to network in an atmosphere that invites intellectual, cultural and social growth.

We are close to your home with a deep and abiding respect for our environment and our cultural roots in Hawai'i. I am confident that we will progress together in an educational atmosphere that emphasizes growth whether your destiny is here at home or beyond our immediate community.

Warmest Aloha,

Douglas Dykstra  
*Chancellor*



# The College



Welcome to Windward Community College, the most beautiful campus in the UH System, set before the majestic Ko'olau peak *Keahiakahoe*.

Windward Community College is the youngest of seven public community colleges in Hawai'i governed by the Board of Regents of the University of Hawai'i. The campus is located at the foot of the majestic Ko'olau range in Kāne'ohe on the island of O'ahu. It opened in the fall of 1972 with 525 students and had a Fall 2016 enrollment of 2,511 students. The College offers both liberal arts and vocational education programs.

## Mission of Windward Community College

Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment—*inspiring students to excellence*.

## Vision for Windward Community College

*Ka Mālamalama o ke Ko'olau* – “Enlightening Ko'olau”

Students and community members will be enriched by “the light of knowledge” through quality programs and be able to lead full, productive lives in a rapidly changing world.

## Core Values of Windward Community College

The College and its mission, goals and actions are guided by core values that reflect the Hawaiian culture:

*Ka lama kū o ka nā'auao*

Creating meaningful curricula and diverse learning experiences

*A 'ohe hana nui ke 'alu 'ia*

Working collaboratively and inclusively

*He pūnāwai kahe wale ke aloha*

Serving and supporting with aloha

*Kūlia i ka nu'u*

Striving for excellence

*He ali'i ka 'āina, he kauā ke kanaka*

Caring for Hawai'i and the planet

Windward Community College is further committed to the mission of the University of Hawai'i Community Colleges:

- To broaden access to post-secondary education in Hawai'i regionally and internationally by providing open-door opportunities for students to enter quality educational programs within their own communities.

- To specialize in the effective teaching of remedial/developmental education, general education, and other introductory liberal arts, pre-professional, and selected baccalaureate courses and programs.
- To provide the trained workforce needed by the State, the region and internationally, by offering occupational, technical, and professional courses and programs which prepare students for immediate employment and career advancement.
- To provide opportunities for personal enrichment, occupational upgrading, and career mobility through credit and non-credit courses and activities.
- To contribute to and stimulate the cultural and intellectual life of the community by providing a forum for the discussion of ideas; by providing leadership, knowledge, problem-solving skills, and general informational services; and by providing opportunities for community members to develop their creativity and appreciate the creative endeavors of others.
- By building upon Hawai'i's unique multi-cultural environment and geographic location through efforts in curriculum development and productive relationships with international counterparts in Asia and the Pacific, UHCC students' learning experiences will prepare them for the global workplace. (University of Hawai'i Community Colleges, Policy UHCCP #4.101).

## Accreditation

Windward Community College is accredited by the Accrediting Commission for Community and Junior Colleges, Western Association of Schools and Colleges.

## Nondiscrimination and Affirmative Action

The university is committed to a policy of nondiscrimination on the basis of race, sex, gender identity and expression, age, religion, color, national origin, ancestry, citizenship, disability, genetic information, marital status, breastfeeding, income assignment for child support, arrest, and court record (except as permissible under State law), sexual orientation, national guard absence, or status as a covered veteran. This policy covers admission and access to the participation, treatment, and employment in the university's programs and activities. Discriminatory harassment, including sexual harassment, is prohibited under this policy. The university shall promote a full realization of equal opportunity through a positive, continuing program of nondiscrimination and affirmative action on each campus.

It is the policy of the University of Hawai'i to comply with Federal and State laws which prohibit discrimination in University programs and activities, including but not necessarily limited to the following laws which cover students and applicants for admission to the University: Title VI of the Civil Rights Act of 1964 as amended (race, color, national

origin); Age Discrimination Act of 1975 (age); Titles VII and VIII of the Public Health Service Act as amended (sex); Title IX of the Education Amendments of 1972 (sex, blindness, severely impaired vision); Section 504 of the Rehabilitation Act of 1973 (disability); and to comply with Federal and State laws which mandate affirmative action and/or prohibit discrimination in employment (including, but not limited to, hiring, firing, upgrading, salaries, benefits, training, and other terms, conditions, and privileges of employment); Title VII of the Civil Rights Act of 1964 as amended (race, color, national origin, religion, sex, pregnancy); Executive Order 11246 as amended (race, color, national origin, religion, sex); Equal Pay Act of 1963 as amended by Title IX of the Education Amendments of 1972 (sex); Age Discrimination in Employment Act of 1967 (ages 40-70); Section 402 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974 (veteran's status); Section 503 and 504 of the Rehabilitation Act of 1973 (disability); Hawai'i Revised Statutes, Chapter 76, 78, 378 (race, sex, sexual orientation, age, religion, color, ancestry, political affiliation, disability, marital status, arrest and court record). The UH Community Colleges strive to promote full realization of equal opportunity through a positive, continuing program including Titles I-IV of the Americans with Disabilities Act (ADA) P.L.101336. Accordingly, vocational education opportunities will be offered without regard to race, color, national origin, sex or disability. American citizens or immigrants with limited English proficiency skills will not be denied admission to vocational education programs. In addition, employees and applicants for employment are protected under Title IX and Section 504.

Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs and activities that receive federal financial assistance. The conduct prohibited under Title IX includes all forms of sex discrimination: the failure to provide equal opportunity in any program or service, discrimination based on pregnancy, sex harassment, gender-based harassment (including intimidation or hostility based on sex-stereotyping), and sexual violence such as sexual assault, sexual coercion, and rape.

## University of Hawai'i Policy and Procedure on Sex Discrimination and Gender-Based Violence (EP 1.204)

The University of Hawai'i is committed to maintaining and promoting safe and respectful campus environments that are free from sex discrimination and gender-based violence. This includes: Sex discrimination; Sexual harassment; Gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; Sexual exploitation; Sexual assault; Domestic violence; Dating violence; and Stalking.

This policy and procedure establishes an integrated and consistent approach to preventing, reporting, and promptly responding to these forms of sex discrimination and gender-



## The College

based violence across all campuses and centers at the University of Hawai'i.

A copy of the policy may be found online at <https://www.hawaii.edu/policy/docs/temp/ep1.204.pdf> or requested through your campus Title IX Coordinator.

Any person believing that they have been subjected to sex discrimination; sexual harassment; gender-based harassment, including harassment based on actual or perceived sex, gender, sexual orientation, gender identity, or gender expression; sexual exploitation; sexual assault; domestic violence; dating violence; or stalking should report the prohibited behavior immediately to the respective campus Title IX Coordinator.

If you wish to remain anonymous, speak with someone confidentially, or would like to receive information and support in a confidential setting to discuss an incident or obtain information regarding sex discrimination and/or gender based violence, please contact our campus Designated Confidential Advocate for Students, Kaahu Alo, Student Life Coordinator, at (808) 235-7354 or via email at [kaahualo@hawaii.edu](mailto:kaahualo@hawaii.edu), or visit Hale Akoakoa Room 232.

Windward Community College also provides short-term mental health counseling to assist students in managing personal life challenges. Our mental health counseling service provider is also considered a Confidential Resource where students can seek assistance related to sex discrimination and gender-based violence. Confidential resources of the campus will not share information about or received from a student, with the student's informed consent, unless imminent threat to life or of bodily injury exists, or there is a legal obligation to reveal such information, e.g., in an employment context or suspected abuse or neglect of a minor. Please contact Karla Silva-Park, Mental Health Counselor at (808) 235-7468 or via email at [karlas@hawaii.edu](mailto:karlas@hawaii.edu) to make an appointment for assistance. Her office is located in Hale Kako'o Room 101.

Students seeking confidential assistance for cases specific to Domestic Violence, Dating Violence, or Stalking may contact our on-campus Domestic Violence Action Center Advocate, Shyla Haven at (808) 294-5483 or via email at [shylah@stoptheviolence.org](mailto:shylah@stoptheviolence.org), Hale Kako'o Room 112.

To formally report an incident of sex or gender-based discrimination contact the Title IX Coordinator or Deputy Title IX Coordinators who oversee Windward Community College's centralized complaint, review, investigation, and resolution process.

Brian Pactol, Title IX Coordinator  
Hale Alaka'i 120  
45-720 Kea'ahala Road, Kāne'ohe, HI 96744  
Phone: (808) 235-7403  
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Hale 'Ākoakoa 202A  
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Phone (808) 235-7370  
Email: [amyrozek@hawaii.edu](mailto:amyrozek@hawaii.edu)

For more information about Title IX and the University's policy prohibiting sex/gender discrimination and sexual misconduct please see: [www.hawaii.edu/titleix](http://www.hawaii.edu/titleix).

You may also contact or file a complaint with the Office for Civil Rights, Seattle Office, US Department of Education, 915 Second Avenue, Room 3310, Seattle, WA 98174-1099.

Phone: (206) 607-1600, Email: [OCR.Seattle@ed.gov](mailto:OCR.Seattle@ed.gov)

For more information regarding your rights under Title IX, please visit: [https://windward.hawaii.edu/Title\\_IX/](https://windward.hawaii.edu/Title_IX/).

### Discrimination Complaints

Students, employees, or applicants for admission or employment who believe that they have been discriminated against on the basis of race, age, religion, color, ancestry, national origin, disability, marital status, veteran's status or arrest and court record may file a complaint with Karen Cho, 808-235-7404, Hale Alaka'i 120, EEO/AA coordinator. The EEO/AA coordinator will explain the available avenues of recourse and direct the person to the appropriate person or office.

Students may also file complaints of discrimination with the Office for Civil Rights, Seattle Office, US Department of Education, 915 Second Avenue, Room 3310, Seattle, WA 98174-1099.

Phone: (206) 607-1600, Email: [OCR.Seattle@ed.gov](mailto:OCR.Seattle@ed.gov)

### Windward Community College Security

Windward Community College is firmly committed to providing a safe and secure environment. Policies and procedures are designed to ensure that every possible precautionary measure is taken to protect persons and property. However, students need to be aware that preventive efforts on their part can effectively reduce their chances of becoming a victim. It is the intent of the Office of Safety and Security to promote awareness of the current programs that exist at WCC to provide for everyone's safety and well-being.

Security information and emergency procedures can be found on the Windward Community College's website main page at <https://windward.hawaii.edu>.

For your safety there are also seven (7) "Blue" Emergency Phones that are positioned throughout the campus. These phones are a direct connection to campus security.

WCC also has an "Emergency Notification System" via email, text, and emergency PA (loudspeaker) system. Student faculty, and staff are also encouraged to sign up to receive these



notifications through the UH ALERT system. This can be done by visiting <https://www.hawaii.edu/alert>

Campus Security can be contacted at ext. 355 or by calling (808) 235-7355. If you are experiencing a medical emergency, reporting a fire or crime in progress, please call 911 immediately.

The Safety and Security Manager's office is located in Hale Alaka'i, room 125 and can be reached at (808) 235-7343. University Campus Security Officers are on duty 24 –hours a day, 7 days a week, including all holidays. University Campus Security Officers conduct vehicle and foot patrols, as well as perform a full range of public safety services dealing with incident reports; campus investigations; medical and fire emergency response; accident assistance; and escort services. University Campus Security Officers are trained in areas such as emergency first-aid, CPR, report writing, investigative skills, and crowd control by experts from the federal, state, and local law enforcement agencies.

Remember, Campus Safety begins with YOU, so  
*"If You See Something, Say Something."*

In accordance with the Jeanne Clery Disclosure of Campus Security Policy & Campus Crime Statistics Act, as amended ("Clery Act"), annual campus crime statistics for Windward Community College may be viewed at [https://windward.hawaii.edu/security/Crime\\_Report.php](https://windward.hawaii.edu/security/Crime_Report.php). A paper copy of the campus crime statistics and campus security policies may be obtained from Campus Security located in Hale Alaka'i room 125.

## Federal Campus Sex Crimes Prevention Act

Also referred to as the "Wetterling Act," requires states to establish programs that require current address registration by residents of the state who have been convicted of sexually violent offenses or offenses involving sexual abuse or exploitation of minors, as described in the Act. The Wetterling Act is an amendment to the Family Educational Rights and Privacy Act of 1974 (FERPA) that also allows educational institutions the ability to disclose information concerning sex offenders that they receive under State sex offender registration and community notification programs. The Campus Sex Crimes Prevention Act requires colleges and universities to provide the campus community with clear guidance as to where this information can be found, and to clarify that Federal laws governing the privacy of educational records do not prevent campus security agencies or other administrators from disclosing such information.

For the State of Hawai'i information regarding registered sex offenders is available through the Hawai'i Criminal Justice Data Center and can be found at:

<http://ag.hawaii.gov/hcjdc/sex-offender-and-other-covered-offender-info/>

## Smoking

It is the policy of Windward Community College to provide a safe and healthy learning and working environment for students and employees. In recognition of the scientifically proven harms associated with exposure to environmental tobacco smoke, campus community members have a right not to be exposed to smoke-contaminated air.

Smoking and the use of e-cigarettes are prohibited in the following areas:

- All interior space owned, rented, or leased by the campus;
- 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 and exits;
- Within 20 feet of air intake ducts and vents, and of 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 outdoor performing arts areas, 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.

Windward Community College has six (6) Designated Smoking Areas throughout the campus for the convenience of those that choose to smoke and use e-cigarettes. The Designated Smoking Areas are located at:

1. Grass area 20 feet from A'o (White House)
2. Great Lawn under the tree at the back of Hale Alaka'i
3. Grass area between Hale Pālanakila courtyard and Imaginarium
4. Great Lawn at the back of Hale Kako'o
5. Great Lawn in front of Hale Na'auao
6. Grass area under the tree near Hale 'Iolani.

For the specific locations of the Designated Smoking Areas, please refer to the smoking area map located on Campus Security's website at:

[https://windward.hawaii.edu/administrative\\_services/Smoke\\_Free/index.php](https://windward.hawaii.edu/administrative_services/Smoke_Free/index.php)

This policy applies to the entire campus community, including faculty, staff, students and visitors. While it relies on the thoughtfulness, consideration and cooperation of smokers and nonsmokers and will not be enforced through disciplinary measures, while other University policies and State laws and rules may be applicable.

## Illegal Drugs and Alcohol

In conformance with the existing law, University faculty, staff

## The College

and students are not permitted to manufacture, distribute, possess, use, dispense or be under the influence of illegal drugs and/or alcohol as prohibited by State and Federal law, at University sponsored or approved events or on University property or in buildings used by the University for education, research or recreational programs. Consistent with its mission, the University will cooperate with law enforcement agencies responsible for enforcing laws related to the use of illegal drugs and alcohol. Students found in violation shall be subject to the provisions of the student conduct code. Faculty and staff found in violation are subject to disciplinary action as provided in collective bargaining agreements, University policy, and other applicable State laws and rules.

The University recognizes that substance abuse is a complex problem that is not easily resolved solely by personal effort and may require professional assistance and/or treatment. Students, faculty and staff members with substance abuse problems are encouraged to take advantage of available diagnostic, referral, counseling and prevention services. The University will not excuse misconduct by employees and students whose judgment is impaired due to substance abuse.

The purchase, possession or consumption of alcoholic beverages is regulated by state law. Students are expected to know and abide by state law and by University rules and regulations governing the use and consumption of alcoholic beverages on campus. Students are referred to Board of Regents policy, executive policies and campus guidelines regulating the use and consumption of alcoholic beverages on campus.

Students are not permitted to be under the influence of, possess, manufacture, distribute, or sell illicit drugs, as prohibited by state law, at University sponsored or approved events, on University property or in buildings used by the University for its educational or recreational programs. Reasonable suspicion of possession or use of illegal drugs and substances on campus may subject the students involved to investigation.

Sanctions which may be imposed on violators of the alcohol and drug related sections of the Student Conduct Code include disciplinary warning, probation, suspension, expulsion, or rescission of grades or degree. Copies of the full text of the code are available online at <http://www.hawaii.edu/apis/ep/c7/c7208.pdf> and in the Office of the Vice Chancellor for Student Affairs.

School sponsored activities on campus that involve either the serving or selling of alcoholic beverages must be in compliance with applicable college/university policies and State laws.

Copies of policies governing the possession, consumption, serving and sale of alcoholic beverages on the University of Hawai'i Windward Community College campus are available in the Office of Student Affairs.

### Weapons

The possession or the carrying of any weapon by any person, except a law enforcement officer, is strictly prohibited on WCC property.

Hawai'i Revised Statutes definition of a deadly weapon is any dirk, dagger, blackjack, slug shot, metal knuckles, pistol, or any other deadly or dangerous weapon. 134-51, Deadly Weapons: prohibitions. The offense is a Misdemeanor unless used in a commission of a crime, will be classified a C Felony.

### Hawai'i Revised Statutes, Section 134

- 134-31, Restriction on possession, sale, gift, or delivery of electric guns. It shall be unlawful for any person, including a licensed manufacturer, licensed importer, or license dealer, to possess, offer for sale, hold for sale, sell, give, lend, or deliver any electric gun.
- 134-25, Place to keep pistol or revolver. Firearms shall be confined to the possessor's place of business, residence, or sojourn and can be transported between these locations unloaded and in an enclosed container. Other places firearm can be carried is to a place of repair, target range, licensed dealer's place of business, organized firearms show, police station, sanctioned hunting or firearm use training or instruction. The offense is a Class B Felony.
- 134-24, Place to keep unloaded firearms other than pistols and revolvers. The offense is a Class C Felony.
- 134-26, Carrying or possessing a loaded firearm on a public highway. The offense is a Class B Felony.
- 134-27, Place to keep ammunition, the offense is a Misdemeanor.

Windward Community College security in conjunction with the Honolulu Police Department will forbid entry on or remaining on WCC property while possessing or carrying weapons in violation of Hawai'i Revised Statutes.

### Academic Rights and Freedoms of Students

Windward Community College embraces those aspects of academic freedom that guarantee the freedom to teach and the freedom to learn. Free inquiry and free expression for both students and faculty are indispensable and inseparable. As members of the academic community, students are encouraged to develop a capacity for critical judgment and to engage in a sustained and independent search for truth.

### Office of International Programs and Services

Windward Community College participates in a variety of International programs. The Vice Chancellor for Academic Affairs may be contacted for information concerning specific programs. The chairperson of the International Education Committee, Professor Toshihiko Ikagawa, serves as liaison with foreign higher education institutions and with the UH and UHCC International Education Committees, which provide information on study abroad programs, and supports and recruits international students.

### Articulated Transfer Programs

WCC has a program-to-program articulation with UH Hilo

for Astronomy and Geology, which spells out the requirements for WCC students who wish to earn a BS degree in either discipline from UH Hilo. For more information on which WCC classes will transfer directly into the Astronomy BS degree program at UH Hilo contact Dr. Joseph Ciotti at 808-236-9111 or the Office of Academic Affairs at 808-235-7422. For more information on which WCC classes will transfer directly into the Geology BA and BS degree programs at UH Hilo contact Dr. Floyd McCoy at 808-236-9115 or the Office of Academic Affairs at 808-235-7422. For other articulated programs, such as Creative Media or Hawaiian-Pacific Studies at UH West O'ahu, please see a counselor.

## Career & Community Education

Windward Community College seeks to improve the quality of life and provide direct educational assistance to individuals, businesses, and special interest groups. Career & Community Education provides services for individual communities and the general public by making available a variety of instructional, cultural, recreational, and career/workforce services in which the institution has special competence or the community has special needs. Career & Community Education also coordinates campus and off-campus programs.

The College offers professional development and continuing education opportunities on and off-campus in Windward O'ahu. Persons who are interested in courses should contact the Career & Community Education office at 808-235-7433.

## Advisory Committees

Windward Community College has invited a number of community leaders in business, industry, and the professions to advise the staff in the development of curricula in accordance with requirements in their fields. Consultations with these leaders relate to course content, selection of training equipment, the nature and extent of employment needs, and evaluation of the effectiveness of the curriculum. New advisory committees are formed as new needs and programs are identified.

### Windward Community College Ambassadors

Claire Durham	Joseph Rothstein
Hallett H. Hammatt, PhD	David Shores
Ian Y. Kitajima	Betsy Takesono
Tom Masterson	Geal F. Talbert
Waynella McNeil	Nancy T. Taylor
Janice Nielsen	Sally White

### Agriculture Advisory Committee

Daryl Cazinha	Andy Kaufman
Robert Lillie	Kevin Eckert
Al Kakazu	Ross Shiroma

### Hawaiian Studies Advisory Committee

Aaron Salā	Hirini Moko Mead, PhD
Roy Fujimoto	Fred Kalani Meinecke
Mark Hamasaki	Meleanna Aluli Meyer
Dennis Kauahi	Peter Kalawai'a Moore, PhD
Emalia Keohokalole	Robert Suggs, PhD
Lani Ma'a Lapilio, Esq.	

### Veterinary Studies Advisory Committee

Eric Ako, DVM <i>Executive Vice President of the Hawai'i Veterinary Medical Association and The Pet Doctor</i>	Stacie Kissel <i>Veterinary Assistant</i>
Arlene Buchholtz, DMV, MPH	Cathy Todd <i>Practice Manager, Kāne'ohe VCA</i>
Mark Caspers, DVM <i>Feather and Fur (Ret.)</i>	Ross Langston <i>Program Coordinator and Natural Sciences Instructor, Windward Community College</i>
Ashley Stokes, DVM, Ph.D <i>UH Mānoa Animal Sciences Program</i>	Peggy Regentine <i>Information and Computer Sciences Instructor, (Ret.) Windward Community College</i>
Dr. Jan Chouljian, DVM	Patti Chong <i>Counselor, Student Affairs, Windward Community College</i>
Shannon Nakamura <i>Veterinary Technician, Feather and Fur</i>	Carla Rogers <i>Counselor, Student Affairs, Windward Community College</i>
Lisel Coles <i>Office Manager, Haiku Veterinary Clinic</i>	
Sam (Craddock) Geiling <i>Veterinary Technician Instructor, AS in Veterinary Technology, WCC</i>	





# Student Affairs & Admission Information



**2017 Veterinary Technology graduates**

Student Affairs at Windward Community College promotes student success by providing information, resources, and guidance for students as they pursue their education from pre-college outreach to application to graduation. Student Affairs includes Outreach and Recruitment, Admission & Records, Financial Aid, TRiO programs, Ka Piko Student Success Services, Counseling, and initiatives such as the First Year Experience.

All areas of Student Affairs support the following Student Learning Outcome:

*Students will access appropriate information and resources to support their academic journey.*

## Admissions & Records Information

### Admissions

Windward Community College is an “open-door” college that welcomes all students who desire to attend college and can benefit from the educational courses and programs offered.

Contact Admissions & Records Office

Hale Alaka'i, Room 112

808-235-7432

[windward.hawaii.edu/admissions\\_records](http://windward.hawaii.edu/admissions_records)

### Eligibility

Any U.S. high school graduate or equivalent (e.g. GED), or person 18 years of age (prior to the start of the semester) or older may attend Windward Community College. There are special requirements for International students and certain selective programs (e.g. Veterinary Assisting, Veterinary Technology).

### Early Admit Programs

WCC also provides educational opportunities for high school

students through our special Early Admit Programs. These programs encourage high school students to get a jump start on their college studies while attending high school.

- **Running Start**, a partnership between the Department of Education and the University of Hawai'i, allows Hawai'i public high school students to attend college classes while earning credits toward their high school graduation and college degree
- **Early College** allows Hawai'i public high school students to obtain high school and college credits simultaneously at designated high school campuses
- **Early Admissions** allows private high school and home schooled students to attend college classes while still enrolled in high school

Contact Student Services Early Admit Counselor

Hale 'Ākoakoa Room 212

808-235-7413

[windward.hawaii.edu/student\\_affairs](http://windward.hawaii.edu/student_affairs)

### Application

All applicants must complete the University of Hawai'i System Application online by the application deadline.

- Students who have missed at least one semester of enrollment must re-apply for admission. Though, students who stopped out within one year, may contact the Admissions & Records Office to re-activate their application.
- Non-Residents are assessed a non-refundable non-resident application fee

The enrollment of non-residents and international students is governed by the Board of Regents policy.

Any and all documents received by the college are the property of the college and will not be returned to the applicant.

### Early Admissions

In addition to the completion of the University of Hawai'i System Application, the following is also required:

- Early College and Running Start students must also complete the Dual Credit Application via <http://www.hawaii.edu/dualcredit/> with approval from the high school and parent/legal guardian
- Early Admissions students must also complete the Early Admissions Application with approval from the high school and parent/legal guardian and the Department of Education Exceptions to Compulsory Education (4140) form for home schooled students (if applicable).

High school students continuing their Early Admit Programs for the following semester must re-submit the appropriate early admit application to continue their status. If graduating



## Student Affairs & Admission Information

from high school and continuing for the following semester, students must submit a Change of Major form to Admissions & Records Office to declare a degree program.

### Auditing

Refer to Auditing in Academic Regulations section.

### Admission of International Students

Windward Community College is authorized under federal law to enroll non-immigrant students in approved SEVIS programs via student visa status (F1 or M1). International students must comply with all regulations of U.S. Department of Homeland Security and the University of Hawai'i policies and procedures. The application process should start as early as possible to successfully complete the application by the deadline. Contact the Admissions & Records Office for eligible programs approved by SEVIS.

Contact Admissions & Records Office

Hale Alaka'i, Room 112

808-235-7432

[https://windward.hawaii.edu/admissions\\_records/international\\_students.php](https://windward.hawaii.edu/admissions_records/international_students.php)

### Fulfill English Proficiency Requirement

If native language is English (Australia, Canada except Quebec, Ireland, New Zealand, United Kingdom), exempt from English Proficiency Requirement.

- Score must be within 2 years prior to the start of the semester
- Score must be sent directly to Windward Community College Admissions & Records Office (#4976)
- Minimum score TOEFL 500 (paper-base), 173 (computer-base), or 61 (internet-base); IELTS academic section 5.5; or EIKEN = Step 2A

### Submit University of Hawai'i System Application

- Apply online via [windward.hawaii.edu/admissions\\_records](https://windward.hawaii.edu/admissions_records)
- Pay the non-refundable non-resident application fee of \$25.00 US dollar
- Select an approved SEVIS degree program

### Submit University of Hawai'i Supplementary Information Form for Undergraduate International Applicants

- Form includes an affidavit of financial support that shows sponsorship and/or financial support in US dollars for tuition, books/supplies, and living costs for the duration of study (refer to supplementary application for estimated cost of attendance)
- Include Sponsor's bank statement in US dollars (must be within the last 6 months)

### Submit Transcripts

- Official high school (secondary) transcripts showing evidence of successful completion of schooling equivalent to 12 years of U.S. education sent directly by the high school to Windward Community College Admissions & Records Office (must include graduation date)
- Official college (post-secondary) transcripts sent directly by college to Windward Community College Admissions & Records Office
- All transcripts must be in English or accompanied by an English translation that has been certified by either a school official or a U.S. consular official

### Submit Signed International Student Health Insurance Acknowledgement Form

- To protect international students against the high cost of unanticipated health care expenses resulting from accidents or illness
- During the first week of the semester, provide proof of valid up-to-date medical health insurance

### For Transfer Students Only

- Must be currently attending another college in the United States
- Must be in good standing at previous college
- Submit Transfer International Student form

### Meet the Deadline (including all documents to complete application)

- Fall Semester (starts in August) deadline is June 1
- Spring Semester (starts in January) deadline is November 1
- Summer not accepting application

### Upon Acceptance to the College

- I-20 will be issued with acceptance letter via mail
- With I-20, apply for a student visa through the U.S. Embassy or Consulate of the country
- Pay SEVIS fee via [www.ice.gov/sevis/i901](https://www.ice.gov/sevis/i901)
- Submit Health Clearances (TB/MMR) via [https://windward.hawaii.edu/admissions\\_records/health\\_clearance.php](https://windward.hawaii.edu/admissions_records/health_clearance.php)
- Required to register resident (on-campus) classes at Windward Community College at least full-time status (12 credits)

### During the First Week of the Semester at Windward Community College

- Provide proof of valid up-to-date medical health insurance
- Submit copy of current passport
- Submit local mailing address

## Student Affairs & Admission Information

### Senior Citizen Visitor Pass

The Senior Citizen Visitor Pass (SCVP) allows seniors to “visit” courses that are offered at Windward Community College free of charge if the seats are available (maximum of three classes). Senior Citizen Visitors are exempt from tuition/fee payments, no credit is awarded, no name will appear on the instructor’s class roster via MyUH, and no permanent academic records are retained in the Admissions & Records office. If the Senior Citizen wishes to enroll in courses to receive credit, he/she is required to follow the same procedure and deadline as other students. Once this Senior Citizen Visitor Pass is issued, the Senior Citizen Visitor cannot request credit for the visited class(es). The Senior Citizen Visitor status cannot provide an active UHID, access to MyUH or Laulima, or full library privileges.

Senior Citizen may apply during the second week of the semester (Fall and Spring only) at the Admissions & Records Office meeting the following conditions:

- Be a Hawai‘i resident for tuition purposes
- At least 60 years of age prior to the first day of the semester
- Clear of University of Hawai‘i financial obligation
- Meet the course pre-requisite
- Meet State of Hawai‘i Department of Health health clearance requirements (Tuberculosis (TB) examination within 12 months prior to the first day of the semester and Measles, Mumps, and Rubella (MMR) immunization records, exempt if born before 1957)

Senior Citizen Visitor Pass Application is required each semester (Fall and Spring only).

### Faculty/Staff Tuition Waiver

Faculty and staff may be eligible for tuition waivers. Employees must be employed on a half-time basis or more to be eligible for tuition waivers at any campus for a maximum of six credits per semester. Faculty/staff tuition waiver applicants must follow the same admissions requirements, procedures and deadline as other students. Once accepted, registration is only during the Late Registration period. Refer to Human Resources department.

### Deadlines

Applicants are encouraged to file their admissions application as early as possible. Completed applications and all supporting and requested documents must be received by the deadline. For application deadline dates, refer to the Admissions and Records webpage at [https://windward.hawaii.edu/admissions\\_records/index.php](https://windward.hawaii.edu/admissions_records/index.php)

### Residency 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. This request must be submitted prior to the start of the term of the change.

For complete rules and regulations or interpretation, contact the residency officer in the Admissions & Records Office. Some of the more pertinent University residency regulations follow.

### 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 guardian have:

- Demonstrated intent to permanently reside in Hawai‘i (see below for evidences);
- 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
- 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 apply:

- Filing Hawai‘i resident personal income tax return
- 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:

- 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. Residency will be lost if it is interrupted during the 12 months immediately preceding the first day of instruction.
- Residency in Hawai‘i and residency in another place cannot be held simultaneously.
- 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 primarily to attend college. Such periods of enrollment cannot be applied toward the physical presence requirement.
- The residency of unmarried students who are minors follows that of the parents or legal guardian. Marriage emancipates a minor.

## Student Affairs & Admission Information

- 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

Non-residents may be allowed to pay resident tuition if they qualify as one of the following:

- United States military personnel and their authorized dependents during the period such personnel are stationed in Hawai'i on active duty
- Members of the Hawai'i National Guard and Hawai'i-based Reserves
- Full-time employees of the University of Hawai'i and their spouses and legal dependents
- East-West Center student grantees pursuing baccalaureate or advanced degrees
- Hawaiians, descendants of the aboriginal peoples who inhabited the Hawaiian Islands and exercised sovereignty in the Hawaiian Islands in 1778
- Veterans eligible to use Post 9/11 GI Bill® or Montgomery GI Bill® Active Duty educational benefits OR individuals eligible to use transferred Post 9/11 GI Bill® or Montgomery GI Bill® Active Duty educational benefits, who live in Hawaii, and enroll at the University within three years of the discharge from a period of active duty service of 90 days or more
- Individuals eligible to use educational benefits under the Marine Gunnery Sergeant John Fry Scholarship who live in Hawai'i
- Individuals eligible to use transferred Post 9/11 GI Bill educational benefits, who live in Hawai'i, and whose transfer is a member of the uniformed service who is serving on active duty

"GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at <http://www.benefits.va.gov/gibill>."

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. At the time of publication, these included the following:

American Samoa  
Commonwealth of the Northern Mariana Islands  
Cook Islands  
Federated States of Micronesia  
Futuna  
Kiribati  
Nauru

Niue

Rapa Nui (Easter Island)

Republic of Palau

Republic of the Marshall Islands

Solomon Islands

Tokelau

Tonga

Tuvalu

Vanuatu

Wallis

*his list is subject to change. For a current list, eligibility and documentation requirements, please contact the Admissions & Records Office.*

### 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 in the Admissions & Records Office for information on how to initiate an appeal.

## Steps to Registering for Classes

Before an applicant can register for classes, the applicant must apply for admissions and be accepted into the college. Applicants will be notified via mail regarding their admissions status. Upon receipt of an acceptance letter, students must complete the following:

### Health Clearances

In compliance with the Hawai'i State Department of Health regulations, students must show evidence of Tuberculosis (TB) clearance within 12 months prior to the start of the term AND two doses of immunization against Measles, Mumps and Rubella (MMR) if born after 1956.

### Placement Testing

Placement into math and English is accomplished through a variety of ways including information from high school transcripts, ACT/SAT scores, Smarter Balanced Assessment scores, GED scores, transfer coursework from another college, and WCC-sponsored placement test (currently ACCUPLACER test). Results will indicate the level at which to start coursework at Windward Community College.

The placement tests are for placement purposes only and are not admission tests. There is no charge for initial placement testing. A picture ID and UH ID number are required to take WCC-sponsored placement test. Contact The Testing Center in Hale La'akea 228 at 808-235-7498 or visit [windward.hawaii.edu/placement\\_tests](http://windward.hawaii.edu/placement_tests) for more information. The Testing Center

## Student Affairs & Admission Information

can also provide guidance for distance learning students who require placement testing at other sites.

Please discuss placement options at your New Student Orientation or with your counselor prior to registration. Transfer students who have completed college-level courses in math and English are not required to take the placement tests. Proof of completed courses (e.g. copy of transcript or grade report) will be required to be provided to the counselor prior to registration.

### MyUH Account

Student creates a MyUH account upon acceptance via [myuh.hawaii.edu](http://myuh.hawaii.edu). MyUH Services is where students register for classes, add/drop classes, make tuition/fee payment, view grades using STAR GPS. Students UH email account (username@hawaii.edu) is the official form of UH communication. Students must check their hawaii.edu email regularly for important messages.

### New Student Orientation

All first-year college students are required to attend an Orientation session. At this meeting, students receive information about registration, campus resources, and college success. Contact Student Affairs at 808-235-7454 in Hale 'Ākoakoa 232 to sign up. Accommodations for distance learning (online) students can be made when signing up for orientation.

### Register for Classes

First-year college students must see a counselor to register for classes. The counselor assists the students with academic advising, class scheduling, and registration. Returning and transfer students in good academic standing may register independently online through STAR GPS. Students should confirm their official class schedule via STAR GPS. To make a counseling appointment:

Contact Student Services  
Hale 'Ākoakoa, Room 212  
808-235-7413

### Tuition/Fee payment

Students can pay online or in-person at any UH Cashier's Office by the deadline. Students can also sign up for the UH Payment Plan.

Contact the Business Office  
Hale Alaka'i Lobby  
808-235-7411  
[windward.hawaii.edu/tuition](http://windward.hawaii.edu/tuition)

### Frosh Camp

All incoming freshman (first time to college) are required to attend Frosh Camp. Frosh Camp is an interactive program that will give you a head start on your first semester at Windward Community College, providing success strategies, access to

campus resources, increased awareness of college expectations and improved transitioning to college.

Frosh Camp is provided to students in Fall and Spring. Call 808-235-7454 for more information.

## Records

The Admissions & Records Office is the custodian of students' academic records. Transcript request, change of major/program, change of home campus, change of address or name, preferred first name, request for transcript evaluation, enrollment verification, VA Educational Benefit certification are processed at the this office.

Contact Admissions & Records Office  
Hale Alaka'i, Room 112  
808-235-7432

[https://windward.hawaii.edu/admissions\\_records/index.php](https://windward.hawaii.edu/admissions_records/index.php)

### Transcript Request

To request for an official transcript, students must complete and sign a Transcript Request form at the Admissions & Records Office or via online. Transcript request will not be accepted by telephone or from persons other than the student without the student's written permission.

Transcript request is no longer required within the University of Hawai'i System. Students should contact their home UH campus for transferring credits from the other UH campuses.

Transcript is processed within seven (7) working days for a fee of \$5.00 per copy. A rush request is processed within 24 working hours for a fee of \$15.00 per copy. Additional postage fees may apply for transcript mailed to foreign locations. Payment is required before the transcript request can be processed and student must be cleared of all UH financial obligation.

### Veteran Administration

Windward Community College is a state-approved school for veteran's educational benefits. Information regarding eligibility, entitlement, and types of training authorized may be obtained from the Veterans Administration Regional Office.

The Admissions & Records Office is responsible for VA enrollment certification. VA enrollment certification will not be processed if the student has a financial obligation to the University of Hawai'i.

VA students must have their prior credits from colleges previously attended and military training evaluated for possible transferring of credits into the college to avoid delay in VA enrollment certification.

### Verification of Enrollment

The Admissions & Records Office is responsible for verifying or confirming students' enrollment and degree conferral. To request for a verification of enrollment, students must complete and sign a Verification of Enrollment form at the Admissions &



Records Office. Verification of enrollment request will not be accepted by telephone or from persons other than the student without the student's written permission.

### **Change of Address**

Students are responsible for keeping the Admissions & Records Office informed of their current mailing and permanent address. Mailing address can be changed via MyUH. International students permanent addresses must be their home country.

### **Change of Major**

Students who wish to change their major must submit a Change of Major form to the Admissions & Records Office. The new major/program is effective the following semester once school begins.

### **Change of Name/Preferred First Name Request**

Students may request a change of name with official documentation to the Admissions & Records Office. Students may request a preferred first name. This is to support students who have a preferred name, such as a Hawaiian name, an international name, or a name that is concurrent with their gender identity.

### **Change of Home Institution**

Home campus is the school from which the student is seeking a degree, and it is where the student may apply for financial aid or veteran education benefits. Students who wish to change their home campus must submit a Change of Home Institution form to the new home institution.

To change home campus to Windward Community College, the Change of Home Institution form should be submitted to the Admissions & Records Office. Windward Community College is declared as the new home institution effective the following semester once school begins.

### **Request for Transcript Evaluation**

For any previous coursework (and military training) to be evaluated for transfer to Windward Community College (WCC), student's home institution must be WCC, he or she must also be in a declared program and currently enrolled or registered/accepted. The college official transcript must be sent directly from the college to WCC Admissions & Records Office. A Request for Transcript Evaluation form may be submitted to inform Admissions & Records Office of incoming transcript. Transcript is maintained for one year.

For transcript from other UH campuses, it is no longer necessary to request transcript to be sent to WCC. UH System transcripts may be viewed electronically by the academic counselor. For University of Hawaii credits to be transferred to WCC, please see an academic counselor or a Request for Transcript Evaluation form may be submitted to inform Admissions & Records Office of UH credits.



## **Academic Advising**

The mission of Windward Community College Counselors is to educate, challenge, and empower our diverse student population through respect, understanding, and advocacy.

This mission is reflected our Student Learning Outcomes:

1. Students will access accurate and appropriate information with regard to their academic status, resource availability, and the next step in their educational path.
2. Counselors will foster student engagement through promoting a relationship based on trust (consistency and reliable information), respect and multiple contacts.
3. Students will develop critical thinking through Identifying Resources; Evaluating Options; Establishing Priorities; Designing Education Plans and Implementing Actions.

Academic advisors are available to help students develop a program of study to meet their educational objectives. In meeting with an academic advisor, students will have an opportunity to develop an individualized educational plan along with a program of academic support throughout their college experience. Students will also receive guidance in academic planning through assistance in course selection.

Academic advising sessions for both traditional and distance learning (online) students are conducted throughout the registration period and may be arranged on an appointment basis by phoning Student Affairs at 808-235-7413.

## Student Affairs

### Personal Counseling

Student Affairs counselors are available to assist students with personal or college-related problems and to help assess personal growth and development.

### Mental Health Counseling

A mental health counselor is available to assist students with a variety of challenges such as stress, anxiety, grief, depression, as well as other challenging situations or scenarios. These issues can often make it difficult for students to stay focused while attending school. The campus mental health counselor provides personal counseling to support students on their academic journey by working with students to address various challenges so they are better equipped to be successful in their education. Counseling provided is free and confidential for all registered students. Appointments may be made by calling 808-235-7468 or by logging in to My Success resource network, via Mental Health & Wellness.

### Student Employment

Job placement assistance is available on a limited basis for referrals to on-campus jobs through the Personnel Office. Eligibility is based on a minimum enrollment of 6 credits within the University of Hawai'i system and a minimum GPA of 2.0. Call 808-235-7404 or stop by Hale Alaka'i 120. See the Federal Work Study Program (FWSP) section for more information.

### Services to Students with Disabilities

In accordance with Section 84.4 of the Federal rules and regulations governing Section 504 of the Rehabilitation Act of 1973, no qualified individual with a disability shall, on the basis of his/her disability, be excluded from participation in, be denied benefits of, or otherwise be subjected to discrimination under any program or activity which receives or benefits from Federal financial assistance.

Students with disabilities, either permanent or temporary, are provided the following services:

- personal, academic and career counseling
- admissions and financial aid application assistance
- campus orientation
- registration assistance
- tutorial, reader, note-taker, interpreter, and/or other academic support services as needed
- campus accessibility map
- specifically designed auxiliary equipment to meet the needs of students with disabilities

Students desiring special services are advised to contact the Disabilities Accommodations Coordinator at least six weeks prior to the beginning of the semester so that services may be arranged on a timely basis. For further information and

assistance please call 808-235-7448.

For disability accommodations, please call 808-235-7448 or the TTY relay service at 1711 or 1511. Advance notice is requested.

Hearing-impaired individuals desiring information may contact the College by using the Telecommunication Device for the Deaf (TTY) relay service at 808-643-8833 or by using the TTY phone located in Hale Alaka'i.

### TRiO Student Support Services

Windward Community College, in association with the federal government, has developed a program to assist students with special needs to make their college experience successful. The program provides remedial/developmental coursework, academic advising, counseling services, and free tutorial assistance for students who meet the federal government eligibility criteria. Students are encouraged to visit the TRiO Student Support Services office located in Hale Kako'o 116, or to call 808-235-7487 for further information.

### Student Activities and Organizations

The Associated Students of the University of Hawai'i at Windward Community College (ASUH-WCC) have an organized student government to develop a program of activities for students and members of the community. Last year ASUH-WCC sponsored the College newspaper, *Ka'Ohana*, the College literary magazine, *Pueo*, and other educational, cultural, and social activities.

Elections for ASUH-WCC seats are held each semester. Interested students are invited to participate in these activities.

### Student Participation in College Governance

Students at Windward Community College are encouraged to participate in institutional policy making and in implementing the program of activities offered.

A number of College committees invite student participation in policy making. Students may also serve as instructors for non-credit courses, lab assistants, and as assistants in the development of a public services program.

Students interested in these activities should contact a member of the ASUH-WCC or the Student Affairs Office staff. To contact the ASUH-WCC, email them at [wccasuh@hawaii.edu](mailto:wccasuh@hawaii.edu) or call 808-235-7395. Students are also encouraged to participate in campus clubs and organizations.

### Honor Society

Students who have earned 12 credits with a cumulative grade point average of 3.5 are invited to join the Phi Theta Kappa National Honor Society each semester. The campus chapter is actively involved in sponsoring events for intellectual and scholarly growth and provides opportunities for service, social activities, and developing friendships for its members. Check

the WCC website for a listing of active clubs.

### Food Services

The Uala Leaf Cafe located in Hale 'Ākoakoa offers affordable and delicious hot meals, sandwiches and snacks to students and community members. The Hub Coffee Shop in Hale La'akea (Library Learning Commons) offers coffee and specialty drinks, pastries and grab-and-go food items. The campus Bookstore offers microwaveable lunch items, snacks and drinks. Several campus buildings are equipped with vending machines. There are a variety of restaurants in nearby Kāne'ohe town.

### Parking

There is no charge for parking, but parking is permitted in designated areas only. Cars parked in restricted areas may be towed away at the owners' expense. The College assumes no liability for damage to or thefts from automobiles parked on campus.

Parking is permitted in the parking lots and along the roads marked for parking. No parking is permitted on the grass or in restricted areas indicated by signs or red or yellow markers.

Parking for disabled persons is provided in specially marked stalls. Special placards issued by the City and County of Honolulu are required to park in these marked stalls. Vehicles without a valid placard are in violation of HRS Sec. 19.150 and may be towed away at owners' expense, in accordance with City Ordinance Sec. 15-24.11 (3d).

### Bookstore

The Windward Community College Bookstore is operated for the convenience of the College's students and staff and members of the community. Textbooks, related reference materials, and some supplies are available. Microwaveable lunches, snacks and drinks are also available.

The Bookstore is located in Hale 'Ākoakoa and is open Monday-Friday, 8:00 a.m. to 3:30 p.m. Phone 808-235-7418.

### Health Services

The College provides no health services. Students are eligible to participate in a group health insurance program.

### Affordable Care Act

On March 23, 2010, President Obama signed the Patient Protection and Affordable Care Act (ACA). Along with the Health Care and Education Reconciliation Act of 2010, the law put in place comprehensive health insurance reforms. The law makes preventive care—including family planning and related care—more accessible and affordable for many Americans. The information and resources provided here are intended to assist Title X-funded family planning centers and other safety net providers in implementing the new law. <http://www.hhs.gov/opa/affordable-care-act/index.html>

Low cost Health care is available through Hawaii Health Care Connection.

### Lost and Found

Articles which are lost and found are taken to/or held at the Security Office in Hale Alaka'i 125, phone 808-235-7355.

### Housing

The College has no dormitories and does not assist students in locating housing.

### Attendance

Regular class attendance is expected of all students, including distance learning (online) students, who must regularly log in to the course laulima site and complete tasks and assignments in a timely manner. Students who stop attending classes or never attended classes are likely to receive an F grade and are responsible for any tuition/fees. To avoid this, official withdrawal must be made by the deadline. Refer to the Academic Calendar or Schedule of Classes for drop/withdrawal dates.

### Electronic Communications with Students

UH email is the official means of communication within the university/college. Students are responsible for checking their email account frequently and consistently to remain current with the university/college communications. Students are expected to monitor and manage their email storage quota to insure that their mailboxes are not saturated and are able to receive new messages.

### Student Conduct

Windward Community College follows the University of Hawai'i Code of Student Conduct which defines expected conduct for students and specifies those acts subject to University sanctions. Students should familiarize themselves with the Code of Student Conduct, since upon enrollment at UH Windward Community College the student has placed herself/himself under the policies and regulations of the University and its duly constituted bodies. The disciplinary authority is exercised through the Office of the Vice Chancellor for Student Affairs. Copies of the Student Conduct Code are available in the Office of the Vice Chancellor for Student Affairs or online at

<http://www.hawaii.edu/policy/?action=viewPolicy&policySection=ep&policyChapter=7&policyNumber=208&menuView=closed>

### Impermissible Behavior

The University of Hawai'i Code of Student Conduct defines impermissible behavior. Students alleged to have violated this policy are subject to the disciplinary procedures of the College. Copies of the hearing procedures are available in the Office of the Vice Chancellor for Student Affairs.

### Academic Dishonesty

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



## Student Affairs

### Cheating

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

### Plagiarism

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

### Student Academic Grievance Procedures

The College has adopted the University of Hawai'i's Policy and Procedures for Student and Applicant Complaints and Grievances. Copies of the procedures are available in the Office of the Vice Chancellor for Student Affairs. Students may also file complaints of discrimination with:

The Office of Civil Rights  
U.S. Department of Education  
Old Federal Building  
50 United Nations Plaza, Rm. 239  
San Francisco, California 94102  
Phone: 415-556-7035

Students having concerns about educational and civil rights matters are encouraged to contact:

Vice Chancellor for Student Affairs  
Windward Community College  
45-720 Kea'ahala Road  
Kāne'ohe, Hawai'i 96744  
Phone: 808-235-7466

### Student Grievance Procedures

The College maintains formal procedures for resolving complaints and grievances brought by students who believe a faculty member has acted improperly or in a manner inconsistent with the student's customary academic

expectations. These procedures are contained in the WCC Policy Guidelines Manual, No. 4-6. The manual is available in the Office of the Vice Chancellor for Student Affairs, the Office of the Vice Chancellor for Academic Affairs, and the library. The following is a general summary of the steps in resolving a complaint. Students who have a complaint are urged to consult Policy No. 4-6 for more information if they wish to go beyond Step 2 below.

The WCC Academic Grievance Procedures protect students' freedom of expression, right to orderly and fair grading and evaluation, and right to confidentiality. These are defined in more detail in the policy.

Students who have a complaint must follow strict timelines to have their complaint resolved under this policy, as follows:

**Step 1.** Within 14 calendar days after a student has become aware of the problem, she or he must attempt to resolve the matter with the faculty member involved.

**Step 2.** If the matter is not resolved, the student may discuss the matter with the faculty member's Dean. This must be done within 7 calendar days after the last scheduled meeting with the faculty member. The Dean has 7 calendar days to resolve the complaint.

**Step 3.** If the student is not satisfied with the results of Step 2, he or she may file a written complaint with the Vice Chancellor for Academic Affairs. This must be done within 7 calendar days after notification by the Dean. The Vice Chancellor for Academic Affairs has 14 calendar days to resolve the matter.

**Step 4.** If the matter is not satisfactorily resolved by the Vice Chancellor for Academic Affairs, the student may file a written grievance with the Chairperson of the Academic Grievance Committee. This must be done within 7 calendar days after notification by the Vice Chancellor for Academic Affairs.

Within 10 calendar days, the Academic Grievance Committee must convene a hearing, detailed procedures for which are contained in the Policy Guidelines Manual. The Committee informs the Chancellor of its findings and recommendations within 5 calendar days after the close of the hearing. The chancellor's decision is final within the University.

The process of addressing allegations of discrimination are described in the procedures for Handling Impermissible Behavior and the Academic Grievance Procedures and in CCCM No. 2210, UH Community College Procedure and Guidelines Relating to Complaints of Discrimination. Copies are available at the Office of the Vice Chancellor for Student Affairs.

Complaints associated with the institution's compliance with academic program quality and accrediting standards can be addressed through our accrediting body, the Accrediting Commission for Community and Junior Colleges (ACCJC). Their complaint process is found at <http://www.accjc.org/complaint-process>.



Students may also file complaints of discrimination with the Office of Civil Rights, Region IX, Henry M. Jackson Federal Building, 915 Second Avenue, Rm. 3310, Seattle, WA 98174-1099. Phone: 206-220-7900, FAX: 206-220-7887.

### Educational Rights and Privacy of Students

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

1. It is the policy of Windward Community College to subscribe to the requirements of Section 438 of the General Education Provision Act, Title IV, of Public Law 90-247, as amended, and to the rules and regulations governing FERPA, which protect the privacy rights of students.

2. 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 Windward Community College 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 Windward

Community College 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 Windward Community College 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 Windward Community College.

- 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 AP 7.022, 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 Windward Community College 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":

1. Name of student;
2. Major field of study;
3. Class (i.e., freshman, sophomore, etc.);
4. Past and present participation in officially recognized activities (including positions held and official statistics related to such participation and performance);
5. Past and present participation in officially recognized sports (including positions held and official statistics related to such participation and performance);
6. Weight and height of members of athletic teams;
7. Dates of attendance;

## Student Affairs

8. Previous institution(s) attended;
9. Full or part-time status;
10. Degree(s) conferred (including dates);
11. 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 UH administrative policy A7.022. 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. Login 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.

### **Use of Social Security Number**

The University of Hawai'i ("University") is committed to safeguarding the privacy of personal and confidential information of its students, employees, alumni, and other individuals associated with the University. In the normal practice of conducting official University business, the University collects and maintains confidential information relating to its students, including a student's Social Security Number ("SSN"). The University requests that a student provide a SSN at the time of application to the University. The SSN is not required for enrollment; however, the University is required by federal law to report to the Internal Revenue Service ("IRS") the SSN and other information for tuition-paying students. Federal law also requires the University to obtain and report to the IRS the SSN for any person to whom compensation is paid. Due to the practical administrative difficulties which the University would encounter in maintaining adequate student records and processing financial transactions without the SSN, the University will continue to collect SSNs as permitted by law for official use within the University system. Providing the University with your SSN ensures that University programs and services are available with the least delay.

Students will be assigned a University generated student identification number upon enrollment, which will be used as the primary identifier. The SSN will not be used as the primary identifier of students associated with the University. The SSN will be used in activities, including but not limited to, matching and reconciling documents in order to determine eligibility for admission and financial aid, to determine residency for tuition purposes, to comply with federal and/or state law reporting requirements (e.g. for financial aid, Internal Revenue Service mandates, Taxpayer's Relief Act of 1997, Immigration and Naturalization Service), and in accordance with the Family Educational Rights and Privacy Act. The SSN will not be disclosed to any persons outside the University system, except as allowed by law or with permission from the individual. This policy does not preclude, if a primary means of identification is unavailable, the University from using the SSN as needed to conduct official University business.

# Tuition & Financial Information

**Resident Tuition: \$126/credit**

**Non-Resident Tuition: \$340/credit**

**Student Fees: \$2/credit \$20 Maximum**

*Visit [windward.hawaii.edu](http://windward.hawaii.edu) for most current information about tuition and fees.*

## **Credit Courses**

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

## **Noncredit Courses**

Tuition and fees vary, depending on the length of the course. Contact the Office of Career & Community Education for detailed information, 808-235-7433.

## **Dishonored Check Fee**

A \$25 service charge is assessed for checks which were made out to the University of Hawai'i and returned for any cause.

## **Late Registration Fee**

A \$30 for Fall/Spring and \$10 for summer additional fee is charged for registration during or after the late registration period.

## **Add/Drop Fee**

A \$5 fee is charged for every schedule change made in person during or after the late registration period. Additional tuition and fees may be applicable when adding a class. There is no fee charged for adding/dropping courses online.

## **Diploma Fee**

A \$15 fee (\$15 extra for a Hawaiian Language diploma) is payable at the time of application for graduation. Diplomas and certificates will not be processed without this payment.

## **Transcript Fee**

A \$5 fee is charged for each transcript that is sent outside of the University of Hawai'i system, for student copies, or for UH non-admission purposes. Rush requests are \$15 per copy for 24-hour processing. Additional postage fees are charged for a transcript that is sent outside of the United States.

## **Non-Resident Application Fee**

A \$25 nonrefundable, nontransferable fee is charged for all non-resident applicants (except a member or authorized dependent of a member of the U.S. Armed Forces, on active duty, stationed in Hawai'i or a veteran discharged within three years of enrollment and eligible for GI Bill® Educational Benefits).

## **Educational Record Fee**

A \$2 fee is charged for a copy of each educational record (e.g. fee statement).



## **Printing Fee**

A minimum fee of \$0.09 per page for black & white printing and \$0.25 per page for color printing is charged to print on the public printers in the Library Learning Commons

## **Credit by Institutional Exam (CBIE) Fee**

An assessment fee equivalent to 50% of the tuition of the course. This is a non-refundable fee regardless of how many credits are petitioned and/or how many are awarded.

## **Portfolio-based Assessment (PBA) Fee**

An assessment fee equivalent to 60% of the tuition of the course. This is a non-refundable fee regardless of how many credits are petitioned and/or how many are awarded.

## **Payments**

Login to MyUH Services, select Pay Tuition and Fees and the Review My Charges/Make an Online Payment page that displays the current amount you owe. A bill will not be mailed to you. **ONLY FULL PAYMENT IS ACCEPTED.** If you are receiving a tuition waiver or scholarship, check with your home campus financial aid office or the awarding department before making payment.



## Tuition & Financial Information

Tuition and fee payments can be made by:

- MyUH Online: Pay by MasterCard, VISA or any credit card accepted by the Discover Network such as 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” and mail to the following address:

Windward Community College – Business Office  
45-720 Kea‘āhala Rd.  
Kāne‘ohe, HI 96744

Mailed 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, debit card, or cashier’s check at any campus business office (no in-person credit card payment).
- 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.

It is the responsibility of students to pay their tuition/fees or drop their courses by the deadline that may cause a financial obligation. Not doing so will lead to a financial debt that if not paid, will be sent to a collection agency. Refer to Financial Obligations to the University policy.

### Refunds

You must first formally withdraw from your class(es) online or in person. If you are eligible for a tuition refund, allow a minimum of 6 weeks to process. Refer to the Academic Calendar or Schedule of Classes for refund dates.

### eRefunds (Direct deposit)

eRefunds are a quick, secure and convenient way to get your credit balance refunds. eRefunds can be deposited directly into your checking or savings account, and you don’t have to worry about a check getting lost in the mail, or make a trip to your bank. In addition, use of eRefunds means fewer paper checks and conservation of valuable resources.

To enroll in eRefunds:

1. Go to MyUH
2. Type in your UH username and UH password
3. Go to View Charges/Make Payment

4. Click on “Click here to access the Student Account Home Page”

5. Click on “Refund” tab at the top of the page.

After a refund is posted to your account, you will receive an email confirming the amount of the refund and the date the refund was processed by the cashier’s office. Please allow 3-5 business days after the email for the funds to be credited to your bank account. Be sure to check with your bank that your funds are available in your account before you begin to write checks, pay bills or withdraw money.

Answers to frequently asked questions about eRefunds are available at University of Hawai‘i FAQs for Student eCommerce Services.

Note: If your financial aid is reduced for any reason (i.e. your full-time or half-time status has changed, you receive additional resources, etc), you may owe a portion or all of the credit balance refund back to the University.

### Tuition

If you withdraw from the College or any of your courses, you may be eligible for a tuition refund. The amount of refund is determined by the date of official withdrawal.

### Activity Fees

If a complete withdrawal from all courses is made before the end of the late registration period, you will receive a 100% refund of the Student Activity fee (\$1/credit to \$10 maximum) and Board of Publication fee (\$1/credit to \$10 maximum).

### Cancelled Classes

A 100% tuition/fees refund is made available to a student if classes are cancelled by the College and the student does not reenroll in other classes.

### Financial Obligations to the University

Students who have not satisfactorily adjusted their financial obligations to any part of the University of Hawai‘i system (such as tuition and fees, traffic violations, parking tickets, unreturned library books, library fines, other fines, locker fees, laboratory breakage charges, transcript fees, loans past due, rental payments, etc.) may be denied grades, transcripts, diplomas and registration, including adds/drops and other entitlement services (e.g. Enrollment Verification, VA Enrollment Certification).

A copy of the “Rules and Regulations Governing Delinquent Financial Obligations Owed the University of Hawai‘i,” promulgated by the Board of Regents, is on file in the Office of the Vice Chancellor for Student Affairs.

# Financial Aid

Windward Community College offers financial aid to students who seek help in funding their cost of education. These expenses may include tuition charges, student fees, books, supplies, living expenses, personal expenses and childcare costs. The WCC Financial Aid Office administers federal, state and institutional aid programs in the form of grants, student loans, scholarships, and employment opportunities. Students applying for financial aid at WCC should submit a FAFSA (Free Application for Federal Student Aid) each year. Additional financial aid information and forms are available on the Financial Aid Office homepage [http://windward.hawaii.edu/Financial\\_Aid/](http://windward.hawaii.edu/Financial_Aid/).

## Basic Financial Aid Eligibility Requirements

- Enrolled in an eligible degree or certificate program at WCC. The programs eligible for financial aid at WCC are Associate in Arts in Liberal Arts, Associate in Arts in Hawaiian Studies, Associate in Science in Natural Science, Associate in Science in Veterinary Technology, Certificate of Achievement in Agripharmatech (Ethnopharmacognosy), and Certificate of Achievement in Veterinary Assisting.
- Have a high school diploma or a GED.
- Be either a U.S. citizen or an eligible non-citizen (i.e. permanent resident alien.)
- Continuing WCC students must be meeting satisfactory academic progress requirements towards their degree objective.
- Males between the ages of 18 and 25 years old must register with the Selective Service or prove exemption from registering.
- Must not owe a repayment on a federal grant or be in default on a student loan.

## Federal Financial Aid Programs

### The Federal Pell Grant

The Federal Pell Grant is based on demonstrated need and is awarded to students who have not earned a bachelor's degree. This grant does not have to be repaid.

### The Federal Supplemental Educational Opportunity Grant (SEOG)

The Federal Supplemental Educational Opportunity Grant (SEOG) is based on exceptional financial need and is awarded to students who are enrolled at least half-time. This grant does not have to be repaid and funds are limited.

### The Federal Work-Study Program

The Federal Work-Study Program is based on financial need and offers students the opportunity to earn their financial aid award through part-time employment on campus. Work hours are

scheduled around a student's class hours and it's a great opportunity to gain valuable work experience while attending school.

### The Federal Direct Stafford Loan Programs

The **Federal Direct Subsidized Stafford Loan** is made to the student and is based on financial need. There is no interest accrual while the student is enrolled in school at least half-time. The maximum award is based on a student's class standing - \$3,500 per year for a first-year student and \$4,500 per year for a second-year student. Repayment begins 6 months after the student ceases to be enrolled at least half-time.

The **Federal Direct Unsubsidized Stafford Loan** is made to the student. The maximum award is based on a student's dependency, status, level of need, and class standing. The maximum award is \$9,500 per year for a first-year student and \$10,500 per year for a second-year student. Repayment begins 6 months after the student ceases to be enrolled at least half-time.

### The Federal Direct Parent Loan for Undergraduate Students (PLUS loan)

The Federal Direct Parent Loan for Undergraduate Students (PLUS loan) has a fixed interest rate and is made to a parent of dependent undergraduate students. The loan amount is based on the student's cost of attendance minus any aid awarded to the student. Repayment of this loan begins 60 days after the funds are disbursed.

## State Financial Aid Programs

### The UH Opportunity Grant

The UH Opportunity Grant is based on financial need and at least half-time enrollment. Funds are limited.

### The Native Hawaiian Tuition Waiver and Second Century Scholars Grant

The Native Hawaiian Tuition Waiver and Second Century Scholars Grant awards are based on Native Hawaiian ancestry, financial need and at least half-time enrollment. Funds are limited.

### The State of Hawai'i Higher Education Loan

The State of Hawai'i Higher Education Loan (available only within the University of Hawai'i system) is a fixed, low-interest rate (5%) student loan for State of Hawai'i residents. The school is the lender for this type of loan program. Interest accrual and repayment does not begin until 9 months after the student ceases to be enrolled at least half time. This type of loan has deferment and cancellation benefits.

# Financial Aid

## Scholarships

### The UH Centennial Scholarship

The UH Centennial Scholarship is for incoming full-time freshman who will graduate from a Hawai'i high school. The student must have a cumulative high school GPA of at least 3.8 or higher or a combined score of 1800 on the three-part SAT Reasoning Test (or ACT equivalent).

### The State of Hawai'i B Plus Scholarship

The State of Hawai'i B Plus Scholarship is for students who demonstrate financial need and graduated from a public Hawai'i high school. The student must have a cumulative high school GPA of at least 3.0 or higher, completion of certain high school courses and a senior project.

Other scholarships available through the WCC Financial Aid Office are noted on the WCC Financial Aid office homepage at [https://windward.hawaii.edu/financial\\_aid/Scholarships.php](https://windward.hawaii.edu/financial_aid/Scholarships.php) and on the scholarship board located in the hallway of the Hale Alaka'i building fronting Room 107 throughout the year.

## FAFSA Application Process

Students applying for financial aid at WCC should submit a FAFSA (Free Application for Federal Student Aid) online each year.

To apply, please follow the steps below:

- You (and possibly your parent – if you are dependent for FAFSA purposes) will need to create a FSA ID at <http://fsaid.ed.gov>. The FSA ID will allow you to file the FAFSA electronically.
- File your FAFSA electronically at [www.fafsa.gov](http://www.fafsa.gov). Please be sure to list WCC on your FAFSA, otherwise, we will not receive your results. WCC's FAFSA Federal School Code is **010390**. You may need financial data (tax return and asset information) to complete the FAFSA. If you have any questions or would like to schedule an appointment, please contact our office at (808) 235-7449 or email at [wccfao@hawaii.edu](mailto:wccfao@hawaii.edu).
- Upon receipt of your FAFSA results, the WCC Financial Aid Office will inform you through your MyUH email on the MyUH Portal if additional information is required to complete your application for awarding.
- Upon determination of your financial aid eligibility, the WCC Financial Aid Office will inform you of your award status and any additional information regarding your financial aid award.

## Financial Aid Satisfactory Academic Progress Policy (SAP)

Federal regulations require that financial aid recipients at Windward Community College (WCC) maintain satisfactory academic progress (SAP) toward the achievement of an eligible degree or certificate. A student's academic progress is evaluated at the conclusion of each spring term.

## Minimum Standards for Financial Aid

### Satisfactory Academic Progress

Students must be enrolled in an eligible degree or certificate program at WCC.

Students must maintain a cumulative grade point average (GPA) of at least 2.0.

Students must successfully complete (pass) at least 67% of all credits attempted. (Example: A student attempts 48 credits to date at WCC and successfully completes 36 credits with a 2.5 cumulative GPA. This student is making satisfactory academic progress by meeting both the minimum 2.0 GPA requirement and the 67% credit completion requirement. By completing 36 of 48 credits, the student has a 75% credit completion rate (36 divided by 48).

### Timeframe of Eligibility

Students must complete their educational objectives within a reasonable period of time. Financial aid recipients will be allowed to attempt 150% of the number of credit hours required to complete their degree or certificate. (Example: An Associate in Arts (AA) degree at WCC requires the completion of 60 credit hours. A student is eligible to receive financial aid for a maximum of 90 (60 x 150%) credit hours attempted while pursuing an AA degree at WCC.)

The following WCC grades will be considered as credits attempted but not successfully completed: F, W, N, NC, I/F, I/N, I/NC.

A student's entire academic history will be taken into account, including periods of enrollment at WCC in which financial aid was not received.

Applicable credit(s) accepted in transfer from another institution will be counted towards the maximum timeframe.

Students may receive funding for repeating a course that has been successfully completed with a "C" grade or higher only once.

A student is allowed 30 remedial English and math credits that are not counted towards the maximum timeframe.

## Financial Aid Suspension

Students who do not meet the cumulative 2.0 GPA or the 67% completion rate of total credits attempted (pace) will be suspended from financial aid eligibility at WCC. Financial aid suspension means that the student is not eligible to receive financial aid at WCC until minimum SAP standards are met.





It will be the student's responsibility to secure other financial resources during this suspension period. Students on Financial Aid Suspension will be notified in writing of their status.

### **Reinstatement**

Students on financial aid suspension may regain their aid eligibility at their own expense by earning sufficient grade points and credits to meet minimum SAP standards of a cumulative GPA of 2.0 and a 67% credit completion rate (pace).

### **Appeal of Financial Aid Suspension**

Students who are suspended from financial aid at WCC may appeal their suspension if they have experienced mitigating circumstances that prevented them from meeting the minimum SAP standards. A Satisfactory Academic Progress Appeal Form (available at the Financial Aid Office) must be submitted to the Financial Aid Office explaining the specific reasons which contributed to the student's lack of progress (accident, illness, death of immediate family member, etc.) and the measures being taken to ensure future satisfactory academic progress. An appointment must be scheduled with the WCC

Financial Aid Office to complete and file an SAP appeal.

The Financial Aid Office will review the appeal to determine whether or not the student will be placed on financial aid probation and help to form an academic plan with the student that is necessary for continued aid eligibility. Students will be notified in writing of their appeal status.

### **Financial Aid Probation**

When an SAP appeal is approved, an academic plan will be established with the student and the student will be placed on financial aid probation. While on financial aid probation, the student will be eligible for aid but must meet the specific minimum standards of their academic plan each term. Students who successfully attain a cumulative GPA of 2.0 and a cumulative credit completion rate of 67% of their attempted credits while on probation will be removed from probation status.

Students on financial aid probation who do not meet the specific minimum standards noted in their academic plan will be placed in financial aid suspension status and will not be eligible for financial aid at WCC.

### **Withdrawal and Refund Policy for Financial Aid Recipients**

Financial aid recipients are advised to contact the Financial Aid Office prior to withdrawing from class(es) at the College for it may result in the repayment of all or part of the aid awarded to the student. In the event a financial aid recipient completely withdraws from the College, any refund due to unearned tuition and fees will be applied to the financial aid program(s) from which the student benefited. The order of financial aid programs to which the refund will be applied is available at the Financial Aid Office webpage.

For inquiries on financial aid, please call 808-235-7449, visit the Financial Aid Office in Hale Alaka'i 107, or log onto our website at [http://windward.hawaii.edu/Financial\\_Aid/](http://windward.hawaii.edu/Financial_Aid/).

# Centers for Learning



At Hale La'akea, the new Silver LEED-certified Library Learning Commons, students take advantage an array of resources and services.

## **Ka Piko Student Success Services at Hale 'Ākoakoa**

### **Peer Mentoring Center**

The Peer Mentoring Center is open to all students and prospective students and is located in Hale 'Ākoakoa 232 (Makai side). Here you can ask questions about campus services and classes, receive an orientation to campus, enjoy our quiet study lounge, and use computers with free printing. Call (808) 235-7454 so we may help you.

### **Student Activities Center**

The Student Activities Center (SAC), located in Hale 'Ākoakoa 232 (Makai side), offers students some respite from a long day of studies, by enjoying recreational activities like pool, table tennis, and air hockey. Students can also relax on our comfortable couches and catch up on world news and events on our big screen televisions. Occasionally, the SAC will also host intramural sporting events, movie screenings, and other campus events. The SAC is also one of two locations where students, faculty, and staff can get their Windward Community College identification cards. Please call 808-235-7395 for more information.

### **Assistive Technologies**

For more information regarding the availability of assistive

technologies information and services, please contact Danielle Grimes at 808-235-7393.

## **Ka Piko Student Success Services at Hale La'akea, (Library Learning Commons)**

### **Testing Center**

The Testing Center provides testing services (e.g., placement testing, distance education testing, makeup testing, and retesting) to UH System students, and for a fee, to non-UH students and private organizations. The Testing Center is located in Hale La'akea 228 and is open Monday through Friday. Please call 808-235-7498 for more information.

### **Math Lab**

The Math Lab, located in Hale La'akea 220, is open Monday through Friday. Services include drop-in tutorial assistance and access to Math Lab resources and math references. While in the Math Lab, students may also checkout graphing calculators as well as math textbooks for temporary use.

### **Writing Center**

The Writing Center invites Windward Community College on-campus students and distance education students to consult with them during any and all stages of the writing process.

Students can receive assistance with brainstorming ideas, thesis development, citations and editing. Please visit Hale La'akea 222, email [wccwrite@hawaii.edu](mailto:wccwrite@hawaii.edu), or call 808-235-7473 for an appointment.

### Supplemental Instruction

Supplemental Instruction (SI) provides academic assistance through peer-facilitated group study sessions. Aside from providing regularly scheduled, out-of-class study sessions, SI Leaders sit in on course lectures, and assist students during class. SI is attached to specific courses, so session locations and times vary. Stop by our office in Hale La'akea 230 or call 808-235-7467 for more information.

### Ho'ouui 'Ike

The Ho'ouui 'Ike program provides academic assistance and coaching support to specific courses on campus. Alaka'i, or peer coaches, not only support students with course content through study sessions and workshops, but also by discussing campus resources, goal setting, time management, and other critical college success skills. Alaka'i also work with students to create step-by-step success plans via MySuccess to help them work toward their goals. For more information, email [scottjks@hawaii.edu](mailto:scottjks@hawaii.edu) or call 808-235-7467.

### Speech Lab

The Speech Lab, located in Hale La'akea 226, provides help with MLA and APA citations, finding credible sources, research (library and online), outlines, use of visual aids, verbal and nonverbal delivery, methods for reducing anxiety, debate practice, and group sessions related to communication. All students from any discipline are welcome. To make an appointment, email [amendoza@hawaii.edu](mailto:amendoza@hawaii.edu) or call 808-236-9221.

### Brainfuse: Online tutoring

Brainfuse is an online tutorial system which students access through their MyUH portal. It offers tutorial services in such subjects as English, ESL writing, math, statistics, anatomy and physiology, economics, accounting, finance, Spanish, biology, chemistry, nursing, and physics. For more information, please visit <https://windward.hawaii.edu/brainfuse/>.

### Fujio Matsuda Technology Training and Education Center (Matsuda Center)

The Office of Career & Community Education administers the Fujio Matsuda Technology Training and Education Center. The Matsuda Center offers a wide range of non-credit courses and workshops, and follow-up activities to individuals who wish to learn about computers in a friendly, low anxiety, high touch environment. The Center is an accessible and valuable community resource, which meets the educational and training needs of individuals and businesses in Windward O'ahu. For additional information on the Matsuda Center, please call 808-235-7433.

### Library Learning Commons

The Library Learning Commons (LLC) in Hale La'akea provides the WCC community with a variety of services and resources. Professional librarians assist with all aspects of student research and offer customized class instruction and workshops. Study spaces in the LLC include group study rooms with whiteboards and monitors, lounge seating, quiet study carrels, and an open computer lab with 60 computers loaded with in-demand software. The library houses over 50,000 books and DVDs, including thousands of items in the beautiful Hawaiian Collection Room. Current University of Hawai'i students and employees may borrow library materials with a photo ID. Non-UH community members may apply for a Community Borrower Card for a modest fee.

The Library's website provides access to over 180,000 ebooks and videos and dozens of online reference and research databases.

The LLC also hosts historical and cultural exhibits and holds events in the fine and performing arts.

For more information, contact the library at 808-235-7436 or visit [library.wcc.hawaii.edu](http://library.wcc.hawaii.edu).

### Media Services

Media Services is maintained by the College primarily to serve the instructional staff in the development and duplication of learning resources for classroom and online instruction. Media Services provides service to students by assisting them with the audiovisual requirements for classroom presentations and provides limited technical services for online classes. Media Services is located in Hale La'akea, the Library Learning Commons Annex.

### Science Resources

#### Center for Aerospace Education

The Center for Aerospace Education (CAE), which was piloted in 1985 and officially established in October 1986, supports WCC's credit and community outreach programs in aerospace science. The mission of the CAE is to inspire students to actively engage in science activities through informal experience and formal education, to explore career options in aerospace science and industry, and to become informed, contributing citizens by becoming science-literate.

The following facilities and services are offered by the CAE:

- Aerospace Exploration Lab
- Hōkūlani Imaginarium
- NASA Flight Training Aerospace Education Laboratory
- Lanihuli Observatory
- Hawai'i Space Grant Consortium-Windward

The CAE also sponsors teacher workshops and offers consultation to students and teachers on aerospace education



## Centers for Learning

and science projects.

The goals of the CAE are to:

- help students develop high-tech skills to succeed in a knowledge-based global economy;
- increase enrollment and success of K-12 students in science, mathematics and technology courses in pre-college grades;
- generate greater interest in careers in science and engineering, and help facilitate the successful transition of students from high school to post-secondary institutions;
- increase the number of underserved students entering college who choose to major in science, technology, engineering and mathematics (STEM) and have the skills necessary to successfully complete their higher education.

For more information, contact Professor Joseph Ciotti at 808-236-9111 or visit the website at [aerospace.wcc.hawaii.edu](http://aerospace.wcc.hawaii.edu).

### Aerospace Exploration Lab

The Aerospace Exploration Lab (AEL), which is managed by the College's Center for Aerospace Education (CAE), provides instructional materials and services in astronomy, astronautics (rocketry), aeronautics (aviation), and atmosphericology (weather and climate). Founded in 1989, this educational resource center acts as a "hands-on" science exploratorium, assisting K-12 students and teachers in discovering scientific principles through low-tech experiential activities.

The AEL also houses a library of aerospace books, magazines, videos, posters, curricular programs, and demonstration models. School tours of the Aerospace Exploration Lab are available on a reservation basis. Visitors can explore the world of science at the Discovery Pad—a hands-on exploratorium, as well as view numerous displays depicting air and space exploration from early flight to the future.

The AEL is located in Hale 'Imiloa 135 (Science Building). All services are free of charge. For inquiries and reservations call Krissie Kellogg at 808-235-7321, or visit [aerospace.wcc.hawaii.edu/AEL.html](http://aerospace.wcc.hawaii.edu/AEL.html).

### Hawai'i Space Grant Consortium—Windward

Windward Community College is a participating member of the Hawai'i Space Grant Consortium (HSGC), which promotes student involvement in space science education. Each semester, a limited number of stipends are available to college students engaged in space-related projects. Students choose a topic under the guidance of a faculty mentor with whom they work throughout the semester. Past projects have included space science curriculum development, astronomical observations, remote sensing of the earth, space art, and zero-g research through the NASA Reduced Gravity Student Flight Opportunities Program on-board its KC-135A aircraft. WCC Space Grant students are currently engaged in CanSat/ARLISS/SLP projects involving high-powered

rocketry and payload probe design and construction, while others are pursuing astronomy internships at the Lanihuli Observatory and Imaginarium. Each semester, students have the opportunity present their work at the HSGC Fellowship Symposium. HSGC—Windward is located in Hale 'Imiloa 112 and managed by the College's Center for Aerospace Education (CAE). Contact Professor Joseph Ciotti for further information at 808-236-9111 or visit the website at <http://aerospace.wcc.hawaii.edu/HSGC.html>.

### Hökūlani Imaginarium

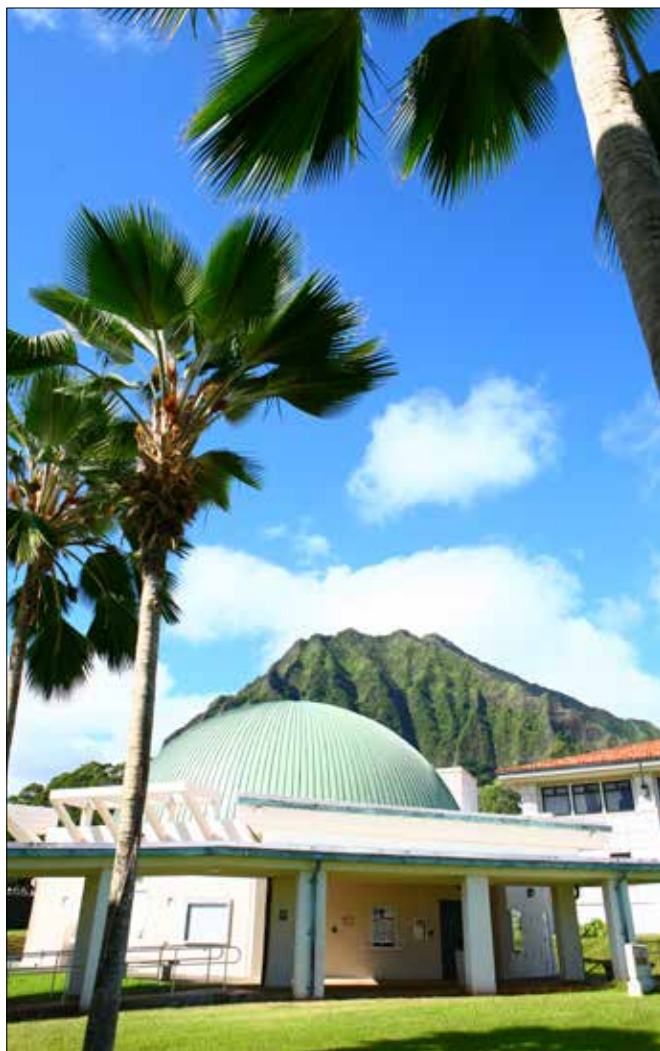
The Hōkūlani Imaginarium is a high-tech, multi-media planetarium and scientific visualization theater under the management of the College's Center for Aerospace Education (CAE). Dedicated in October 2001, the Imaginarium supports the College's astronomy and Polynesian navigation curricula and community outreach efforts. The Imaginarium consists of a full-dome, high-definition (4k) projector system with 5.1 digital surround-sound audio. Its 84 seats are equipped with interactive buttons for audience participation. This facility is available for K-12 visits as well as group and public shows. For school tours call 808-235-7321. For public shows contact the College's Office of Career & Community Education at 808-235-7433. An admission fee is charged for shows. For general information, call Dineene O'Connor, Imaginarium Manager, at 808-236-7350 or visit the website at [aerospace.wcc.hawaii.edu/imaginarium.html](http://aerospace.wcc.hawaii.edu/imaginarium.html).

A 32" bronze armillary sundial with Polynesian theme is situated on the northeast lawn of the Imaginarium.

### Lanihuli Observatory

Lanihuli Observatory is an astronomical and meteorological observatory under the management of the College's Center for Aerospace Education (CAE). Dedicated in Oct 2007, Lanihuli Observatory supports the College's astronomy labs, HSGC student projects, K-12 outreach and the general public. This facility includes:

- NOAA weather satellite tracking station providing real-time images of the weather and ocean conditions surrounding Hawai'i as well as an on-site weather station.
- Radio telescope operated in partnership with NASA Goddard Space Flight Center's Radio Jove Project. Radio observations of Jupiter and the sun are streamed to students around the world via the Internet.
- Solar telescope (heliostat) consisting of a 6-inch refractor capable of white light projection and direct H-alpha viewing.
- 16-inch optical Schmidt-Cassegrain telescope under an automated 16-foot dome.
- A 5-inch refractor is mounted on the main telescope.
- Cosmic ray telescope operated in affiliation with Fermilab's QuarkNet project.



**The Hōkūlani Imaginarium and Hale Pālanakila humanities building provide specially designed spaces for learning science and the arts.**

- Visitor's Gallery with library and earth/space science kiosks including a 24-inch Magic Planet display.

The Lanihuli Observatory is available for daytime school tours and to the general public after evening Imaginarium shows. There is no charge to visit this facility. To schedule school tours, contact 808-235-7321. Jovian and solar radio data collected through NASA's radio Jove project are archived at [jupiter.wcc.hawaii.edu/newradiojove/lanihuli.html](http://jupiter.wcc.hawaii.edu/newradiojove/lanihuli.html).

### **NASA Flight Training Aerospace Education Laboratory**

NASA Flight Training Aerospace Education Laboratory (AEL) was dedicated in 2002 in partnership with NASA's Glenn Research Center. Managed by the College's Center for Aerospace Education (CAE), this facility houses computer simulators designed for exploring careers in aerospace. Included are a research-grade wind tunnel, a zero gravity drop tower, and a flight simulator. Located in Hale 'Imiloa 112, the NASA Flight Training AEL supports the College's astronomy curriculum, other STEM-related programs, the pre-engineering program,

and Hawai'i Space Grant Consortium students, and serves as a community outreach resource for students in grades six and above. There is no charge for this venue. For school tours, contact 808-235-7321. For general information, contact Dr. Jacob Hudson at 808-347-8246 or visit [aerospace.wcc.hawaii.edu/NASAael.html](http://aerospace.wcc.hawaii.edu/NASAael.html).

### **Bioprocessing Medicinal Garden Complex**

The Bioprocessing Medicinal Garden Complex is located across from Hale 'Imiloa. It was dedicated on June 18, 2007 and consists of three facilities: the medicinal garden (collections of plants from Asia, the Pacific, and America), the aquaponic system, and the bioprocessing facility. The complex is supported through the grants from USDA-NIFA (National Institute of Food and Agriculture) and USDA-SPEC (U.S. Department of Agriculture - Secondary and Two-Year Post secondary Agriculture Education Challenge). The medicinal plants grown organically in the garden and in the aquaponic system are processed into plant-based products in the bioprocessing facility. For more information, contact Dr. Ingelia White at 808-236-9102. [windward.hawaii.edu/About\\_WCC/Medicinal\\_Garden/index.php](http://windward.hawaii.edu/About_WCC/Medicinal_Garden/index.php)

### **Climate-Controlled Greenhouse**

The climate-controlled greenhouse is located next to Hale 'Imiloa. It was acquired through a grant from the Pacific Center for Advanced Technology Training (PCATT), and was dedicated on October 3, 2001. The greenhouse provides a controlled atmosphere for mericlones and seedlings to thrive out of their post-in-vitro culture. It also houses orchid species for identification purposes. Contact Dr. Ingelia White for further information at 808-236-9102. [windward.hawaii.edu/About\\_WCC/Green\\_House/](http://windward.hawaii.edu/About_WCC/Green_House/)

### **Kuhi La'au**

The Kuhi La'au – Tropical Plant and Orchid Identification Facility: Inouye and Rifai Collection is located in Hale 'Imiloa 112-A. It was dedicated on February 9, 2000. The facility provides a free plant identification service, focusing on plants of Hawai'i, tropical plants of Asia and the Pacific, and orchids. Fresh samples of branches, flowers or fruits can be sent to the facility for identification. Information regarding plant names and ethnobotanical uses will be mailed to the sender within a week. For further information, contact Dr. Ingelia White at 808-236-9102. [windward.hawaii.edu/About\\_WCC/Kuhi\\_Laau](http://windward.hawaii.edu/About_WCC/Kuhi_Laau)

### **Tissue Culture and Plant Biotechnology Laboratory**

The laboratory is located in Hale 'Imiloa 101-A. It is supported through the grants from USDA-NIFA (National Institute of Food and Agriculture), and was dedicated on February 5, 2003. The Tissue Culture and Plant Biotechnology Laboratory is an aseptic room used for in vitro culture and gene transformation operations. Contact Dr. Ingelia White at 808-236-9102. [windward.hawaii.edu/About\\_WCC/Tissue\\_Lab](http://windward.hawaii.edu/About_WCC/Tissue_Lab)

## Centers for Learning

### Coral Disease Laboratory

The Coral Disease Lab, a Windward Community College facility operated in partnership with the Hawai'i Institute of Marine Biology and the Papahānaumokuākea Marine National Refuge, is managed by the Pacific Center for Environmental Studies (PaCES). Located in Hale 'Imiloa, the Lab conducts collaborative research and education projects whose goals are to understand the occurrence of disease in coral reef organisms. Students may participate in these projects for credit by enrolling in undergraduate Independent study courses through the Marine Option Program or through PaCES. Paid internships may be available (pending funding) from the Pacific Center for Environmental Studies. For additional information, contact either Professor Floyd McCoy at 808-236-9115 or Professor David Krupp at 808-236-9121.

### Pacific Center for Environmental Studies (PaCES)

Housed within the Department of Natural Sciences, the Pacific Center for Environmental Studies (PaCES) encourages and supports environmental science education, research, and stewardship at Windward Community College through the following activities: undergraduate environmental science enrichment through classroom instruction and research; workforce training; K-12 environmental science enrichment; teacher training; and community environmental science awareness.

PaCES is guided by the following themes:

- Understanding the functioning of ecosystems and human influences on them;
- Viewing humans as functional components of ecosystems from historical, cultural, and social, as well as scientific, perspectives;
- Recognizing that the quality of human life is dependent upon the quality of our environment and our ability to sustain our humanity within this environment;
- Promoting stewardship through wise and thoughtful management of our environment and natural resources, looking to traditional practices and promising technologies of the future; and
- Embracing ahupua'a as a symbol for sustainability and positive human interaction with the environment.

Along with providing support for the College's environmental studies courses, PaCES also integrates and coordinates WCC's Academic Subject Certificate in Bio-Resources Development and Management, the Marine Option Program, and Coral Disease Laboratory. For more information, contact either Professor David Krupp at 808-236-9121 or Professor Floyd McCoy at 808-236-9115, or visit the website at [windward.hawaii.edu/paces/](http://windward.hawaii.edu/paces/).

### Performing and Visual Arts Resources

#### Gallery 'Iolani

Gallery 'Iolani is recognized as one of the finest exhibition sites in the state of Hawai'i, showing work from local, national and international venues. It is the mission of Gallery 'Iolani to promote exhibitions of cultural and educational significance. The gallery also serves as a classroom for students studying gallery design and management at Windward Community College. Gallery 'Iolani is located adjacent to Palikū Theatre in the Hale Pālanakila complex. For more information about the gallery and/or opportunity to study in the gallery design class, contact Art Professor and Gallery Director Toni Martin at 808-236-9150, or visit [gallery.windward.hawaii.edu](http://gallery.windward.hawaii.edu).

#### Palikū Theatre

Palikū Theatre—the jewel of Windward O'ahu—is a state-of-the-art, 300-seat theatre that provides theatrical opportunities to students, faculty and the community, while promoting cultural diversity in an educational setting. Palikū Theatre has been in operation since July, 2002 and offers a unique, flexible and affordable performance venue for students and members of the community to showcase their talents in drama, music, and dance. The theatre is also home to an in-house production company, which has successfully staged such popular productions as *Fiddler on the Roof*, *My Fair Lady*, *Big River*, *South Pacific*, *Miss Saigon*, *Oklahoma!*, *Phantom of the Opera*, *Les Miserables* and *Hairspray!* The facility is also used as a venue for lectures, seminars, concerts, hula ho'ike, and special speaking engagements as part of the College's educational and community service programs. For more information, you may contact theatre manager Tom Holowach at 808-235-7330, email [Paliku2@hawaii.edu](mailto:Paliku2@hawaii.edu), or visit [paliku.com](http://paliku.com).



# Academic Regulations



Palikū Theatre, Gallery 'Iolani and studio spaces in Hale Pālanakila serve as rich training grounds for visual and performing arts students.

## Transfer of Credits from Other Institutions

Credits earned for courses taken at any of the public community colleges in Hawai'i, or at the University of Hawai'i at Mānoa, West O'ahu, and Hilo may be transferred to this College and applied to meet requirements of degree and certificate programs subject to the specific requirements in each program. Some credits, however, may be classified as electives if Windward Community College has no equivalent course.

Credits earned at a grade level of "D" (not D-) or better at other regionally accredited institutions either in Hawai'i or another state or country may be transferable and applied to meet program requirements at Windward Community College. "CR" or similar "PASS" grades are acceptable if the awarding institution indicates the work is of "D" level or better. Counselors are available to discuss with students which credits are acceptable in transfer from other institutions. The College's policy statement on the acceptance of transfer credits is available from the Office of the Vice Chancellor for Student Affairs.

Students must be aware, however, that transfer credits awarded are applicable to meet requirements of this College but may not necessarily be accepted by any other institution upon transfer of the student from Windward Community College to another college.

Students transferring to other institutions from Windward Community College should refer to that institution's transfer information.

## Prior Learning Credits

Students with life and work experience can shorten the road to attaining a college degree by applying for Prior Learning Assessment (PLA). PLA is a process through which students can earn college credit by identifying and documenting college-level learning that has been acquired through life experiences. Students with such life experiences may choose to validate their expertise through a number of evaluation procedures. Awarding of credits at Windward Community College applies ONLY to degrees and/or certificates student is enrolled in at this institution. Other colleges and community colleges, even within the University of Hawai'i system, may have slightly different policies for accepting transfer credits. The granting of credits at WCC in no way obligates another institution to accept the same credits or apply those credits in the same manner.

There are many forms of Prior Learning Assessment (PLA). Please work with your PLA representative in the counseling office to determine what options best fit your experience.

## Credit by Examination/Course Challenge

Windward Community College students who present evidence of having achieved student learning outcomes through prior experience may apply for credit by exam or course challenge. These options are not available for all courses so students are advised to check with individual instructors and the Department Chairperson on a course-by-course basis. Assessment could include a competency based exam or

## Academic Regulations

### Grading

Letter grades and grade points are awarded to students to reflect their level of achievement of the objectives of a course. At the College, the letter grades which can be awarded include the following table:

A	Excellent achievement	4 grade points given (course credits awarded)
B	Above average achievement	3 grade points given (course credits awarded)
C	Average achievement	2 grade points given (course credits awarded)
D	Minimal passing achievement	1 grade point given (course credits awarded)
F	Less than minimal passing achievement	0 grade points given (no course credits awarded)
CR	Achievement of objectives of course at C level or higher	No grade points given (course credits awarded)
NC	Used to denote achievement of objectives of the course	No grade points given (no course credits awarded) at less than C level under the CR/NC option
N <sup>1</sup>	Refer to footnote	No grade points given (no course credits awarded)
I <sup>2</sup>	Incomplete	No grade points given (no course credit awarded until student completes course)
W <sup>3</sup>	Official withdrawal from course	No grade points given (no course credits awarded)
L	Audited Course	No grade points given (no course credits awarded)
CE	Credit by exam	No grade points given (course credits awarded)
NCE	No Credit by exam	No grade points given (no course credits awarded)
PBA	Portfolio Based Assessment	No grade points given (course credits awarded)

<sup>1</sup>N grade indicates that the student has worked conscientiously, attended regularly, finished all work, fulfilled course responsibilities, and has made measurable progress. However, either the student has not achieved the minimal student learning objectives and is not yet prepared to succeed at the next level, or the student has made consistent progress in the class but is unable to complete the class due to extenuating circumstances, such as major health, personal or family emergencies.

<sup>2</sup>I grade (Incomplete) is a temporary grade given at the instructor's option when a student has failed to complete a small part of a course because of circumstances beyond his or her control. The student is expected to complete the course by the designated deadline in the succeeding semester. If this is not done, the "I" will revert to the contingency grade identified by the instructor.

<sup>3</sup>W grade indicates that the student officially dropped/withdrew from the class. If the student dropped/withdrew during the erase period, the record of the registration does not appear on the transcript. Refer to the Academic Calendar or Schedule of Classes for drop/withdrawal deadlines.

project, as determined by the academic experts. Students must be officially enrolled in at least one course (other than the course the student is attempting to receive credit by exam for) during the semester in which credit by exam/course challenge is attempted. Credit by examination forms must be filed with the Admissions & Records Office prior to the end of the late registration period. Students will be charged 50% of the tuition for the course credit.

### Equivalency Examinations

Students may apply for credits by having official transcripts from examination institutions sent to Windward Community College. These examination programs include the following. Students must meet qualifying scores set by the campus to be awarded credit.

**a) Advanced Placement (AP) Examinations:** The Advanced Placement Examinations are administered at high schools by the Educational Testing Service for the college Entrance Examination Board for students who have completed specific

college-level courses in high school. For program details, see <http://apcentral.collegeboard.com>. For the University's credit policy, students should consult the Student Affairs Office.

**b) College Level Examination Program (CLEP):** The College Board also offers tests of basic entry-level college material through its College Level Examination Program (CLEP). For program details, see <http://www.collegeboard.com/highered/clep/index.html>. Students must achieve CLEP examination scores at or above specified levels of achievement in order to be awarded credits.

**c) DANTES Subject Standardized Tests (DSST):** Student is advised to discuss test scores with their counselor for consideration of transferring in credits.

**d) Excelsior College Equivalency Exams (ECE or UExcel):** administered by PearsonVue. Student is advised to discuss test scores with their counselor for consideration of transferring in credits.

**e) International Baccalaureate (IB):** Credits earned from

institutions of higher education outside the U.S. may be transferred in some cases. Transcripts and related documents are to include course descriptions and MUST have certified English translations attached. The College will grant credits and/or waivers on the basis of IB higher level examinations.

### Non-Collegiate-Sponsored Education Credit

This option evaluates learning from courses completed in non-collegiate settings (e.g. professional license, labor union courses, agency training programs, professional workshops, and military courses). Examples of such education credit include Army ACE Registry Transcript System (AARTS), Sailor Marine ACE Registry Transcript (SMART), American Council on Education (ACE), College Credit Recommendation Service, and Professional Licenses or Industry Certifications (nationally- or state-certified professionals). Documentation of non-collegiate training must be provided to the program that would be accepting credit in transfer. Course credit recommendations provided by the ACE in the National Guide to Educational Credit for Training Programs may be used by programs in deciding on the type and amount of credit that may be granted. AARTS/SMARTS transcripts sent directly to the College will be evaluated and appropriate credits granted toward a specific degree and/or certificate. Windward Community College reserves the right to reject recommendations made by the American Council on Education (ACE) guidelines. For questions on awarding credits for various licensing, please see the PLA representative in the Counseling office.

### Portfolio-Based Assessment

Portfolio-based review is one of the newest options for awarding Prior Learning (PL) credits. Using portfolio-based assessments, students prepare documentation and provide evidence of learning from outside the traditional classroom. The documentation and evidence are reviewed by a panel of subject matter experts who use course Student Learning Outcomes (SLOs) as the basis to compare the portfolio documentation and evidence. Based on this review process, recommendations will be made to award the appropriate number of college credits and a grade of "PBA," Portfolio Based Assessment, which does not give grade points but only course credits. Students pay equal to 60% of tuition for the course credit requested portfolio assessment fee. More information can be obtained from the PLA representative. Portfolio-based assessment is recommended for students who have substantial professional or community experience and college-level writing skills (i.e. qualify for ENG 100).

### Grade Point Average

A student's grade point average is computed by dividing the student's total grade points earned by the total credits attempted, excluding the credits for classes in which grades of I, W, N, CR, and NC were awarded. Although I, W, N, and NC are not included in the grade point average, students are

advised that some colleges, especially graduate and professional schools, do not look favorably upon transcripts containing these grades. Similar attitudes occur among some employers and scholarship grantors.

### Repeating Courses

A student may repeat any course taken at the College but will receive additional credit only if the course description in the catalog states that the course may be repeated for additional credit. With the exception of courses which specifically allow repeating for additional credit, credit will be allowed only once for a course, and the student will receive the higher grade and grade point. The lower grade, however, shall remain on the student's record.

### Dean's List

Each semester the Dean's List recognizes students who have achieved academic excellence at the College. Students who have earned 24 credits at the College, who have a current and cumulative grade point average of 3.5 or better, and who have no N or NC grades in the current semester are automatically placed on the Dean's List, which is noted on their transcript.

### Credit/No Credit Option

The Credit/No Credit option is maintained to encourage students to broaden their education by taking courses outside of major requirements without affecting their grade point averages. No grade points are given for courses taken under this grading option. Course credit is awarded for courses completed at Windward Community College with certain restrictions. This grading option is not offered in all courses and students majoring in a particular program are not permitted to take a major required course with the CR/NC grading option. The student should consult the instructor's course outline to determine if this option is available in a particular course. If this option is available, the student must submit the completed CR/NC Option form to the Admissions & Records Office by the deadline. Once the CR/NC Option is submitted, the CR/NC cannot be changed. Refer to the Academic Calendar or Schedule of Classes for deadline date.

### Auditing

No credit is given for an audited course. The grade of "L" will be recorded for the course on the student's transcript.

Auditors must complete all admission and registration requirements and procedures, including the payment of tuition and fees. Students are permitted to audit certain classes with the written consent of the instructor. Students who want to audit a course must submit the completed Audit Request Form to the Admissions & Records Office by the deadline. Refer to the Academic Calendar or Schedule of Classes for deadline date.



# Academic Regulations

## Grade Reports

Grade reports may be viewed online at the end of each semester. Students must report any errors on their grade report to the Admissions & Records Office within 7 calendar days following the end of term.

## Academic Probation Policy

Further details of the policy are available in the Office of the Vice Chancellor for Student Affairs, Hale 'Ākoakoa 202, 808-235-7466.

A cumulative GPA of 2.0 is required to remain on satisfactory academic progress at Windward Community College. Students who do not meet this minimum GPA at the end of any semester will receive a warning of unsatisfactory academic progress. If satisfactory progress is not made in ensuing semesters, the student will be placed on academic probation and eventually suspended or dismissed from the College.

All students notified of unsatisfactory academic progress are required to meet with an academic counselor prior to registration.

### Warning

Students may be placed on academic warning at the end of any semester in which their cumulative GPA falls below 2.0. A warning is not notated on the permanent academic record. Warned students may continue to attend Windward Community College but must raise their cumulative GPA to 2.0 or higher. Failure to do so will result in academic probation.

### Probation

If students on warning fail to raise their cumulative GPA to 2.0 or higher, they will be placed on academic probation. Notation of probation is made on the students' permanent academic record. Probationary students may continue to attend Windward Community College under the following terms:

- they will be allowed to enroll only in courses approved by an academic counselor
- they will meet regularly thereafter with that counselor to review progress
- they must earn a semester GPA of 2.0 in each probationary semester
- they will remain on probation until their cumulative GPA is raised to 2.0 or higher
- Failure to meet these conditions will result in academic suspension.

### Suspension

A student will be suspended for failing to meet the terms of probation. Notation of academic suspension is made on the student's permanent academic record. A suspended student is eligible to apply and return to Windward Community College

after a wait period of at least one semester (not including summer session). A student returning after suspension will be placed on probation during the semester of re-entry. Under extenuating circumstances a waiver of the wait period may be granted, allowing a student to enroll. Failure to meet the terms of probation after returning from suspension will result in dismissal.

### Dismissal

A student returning after suspension will be dismissed for failing to meet the terms of probation. A dismissed student may be readmitted only in unusual circumstances, and only after the passage of at least two semesters (not including summer session). Note that readmission after dismissal occurs only rarely.

### Removal from Probation

A student will be removed from probation once the cumulative GPA is raised to 2.0 or higher.

### Appeals

A student may appeal a decision regarding academic probation, suspension or dismissal by filing a formal petition with the Office of the Vice Chancellor for Student Affairs in Hale 'Ākoakoa 202 in person or via US Postal Service mail. It is recommended that receipt of appeals sent by mail be confirmed via a phone call to the Vice Chancellor for Student Affairs at 235-7446. Appeals must be filed as soon as notification is received, and prior to the first day of instruction of the following semester.

# Degrees & Certificates

## The Instructional Program

The instructional program at Windward Community College recognizes that people differ in interest, motivation, ability, and learning styles. Thus, alternatives are stressed in the kinds, levels, and ways in which courses are offered. Courses offered are intended to meet the needs of individuals:

- intending to earn an Associate in Arts degree;
- intending to earn an Associate in Science degree;
- intending to earn a Certificate of Achievement in a vocational program;
- intending to earn a Certificate of Competence in a vocational program;
- intending to transfer to a four-year college to earn a bachelor's degree;
- interested in taking courses for personal enrichment;
- interested in acquiring skills and knowledge needed for employment in selected occupational fields;
- interested in reinforcing basic learning and study skills, e.g., reading, writing, note taking, memory skills;
- interested in updating skills and knowledge for employment in certain vocational fields.

Modes of instruction also vary and students may enroll in group-learning, lecture-oriented classes, highly individualized classes, or independent study projects. A few classes take an interdisciplinary approach to a topic or problem.

Some coordinated studies packages are also offered. Here, instructors offering interrelated courses integrate their courses and provide students with a team of professionals who are concerned with all the learning activities of the student.

Piggyback courses are also offered. In some of these courses, where self-instructional materials are used, students can opt to meet the objectives of different courses, working at their own rate of speed and proceeding to a second level within the term, depending on their own abilities.

A pre-test may also be given in some classes. This is intended to help identify the knowledge and skills already possessed by students, thus enabling instructors to tailor the instruction to meet the special needs or interests of the class. (Pre-tests are not used in grading students.)

## General Education Mission Statement

Windward Community College provides an open door to a comprehensive general education through which students enhance basic tools of inquiry for understanding themselves and the world around them, develop their capacity to expand and apply knowledge, and cultivate more creative and meaningful lives. With an orientation to Hawai'i and its unique heritage, general education at Windward Community College includes: Global and Cultural Awareness, Critical Thinking and Creativity, Communication and Information Literacy.

## Degrees & Certificates offered at Windward Community College

### Associate Degrees (AA)

Associate in Arts in Liberal Arts

Associate in Arts in Hawaiian Studies

### Associate Degrees (AS)

Associate in Science in Natural Science

Associate in Science in Veterinary Technology

### Academic Subject Certificates (ASC)

Art: Drawing and Painting

Bio-Resources and Technology

Business

Hawaiian Studies

Psycho-Social Developmental Studies

## Professional, Occupational and Technical Certificates

### Certificates of Achievement

Agripharmatech

Veterinary Assisting

### Certificates of Competence

Information Computer Science: Web Support

Information Security

Plant Food Production and Technology

Sustainable Agriculture

MOP Marine Option Program  
(through UH Mānoa)

### Noncredit Workforce Training

Certified Nurse's Aide

CPR, First Aid and AED

Foodservice

Ocean Education and Safety

Office Worker Pathway

## Degrees & Certificates

### Windward Community College General Education Student Learning Outcomes

#### Global and Cultural Awareness

Develop the ability to perceive how people interact with their cultural and natural environments, through their own worldview and through the worldviews of others, in order to analyze how individuals and groups function in local and global contexts.

Specific outcomes in Global and Cultural Awareness may include:

- Analyze and empathize with the attitudes and beliefs of other cultures.
- Identify instances where cultural norms affect cross-cultural communication.
- Explore how various factors shape a culture's development and values and one's sense of place.

#### Critical Thinking and Creativity

Make judgments, solve problems, and reach decisions using analytical, critical, and creative thinking skills.

Specific outcomes in Critical Thinking and Creativity may include:

- Identify challenges and problems and find solutions through creative exploration, scientific and quantitative reasoning, and other forms of inquiry
- Analyze complex ideas to arrive at reasoned conclusions
- Use creative processes to discover potential and to express ideas and beliefs

#### Communication

Use written, visual, and oral communication to discover, develop, and communicate meaning, and to respond respectfully to the ideas of others in multiple environments.

Specific outcomes in Communication may include:

- Listen to, comprehend, interpret, analyze, synthesize and evaluate ideas
- Present ideas in a variety of formats, including written, oral and visual
- Convey ideas and facts to a variety of audiences in various contexts

#### Information Literacy

Identify information needed in a variety of situations, and access, evaluate, and use relevant information effectively and responsibly.

Specific outcomes in Information Literacy may include:

- Determine the nature and extent of information needed in order to accomplish a goal

- Use appropriate resources and methods to access and acquire relevant information
- Critically evaluate information and its sources
- Organize, synthesize, and communicate information to achieve a specific purpose
- Apply ethical, legal and social standards when using information and information technology

### Transfer of General Education Core Requirements

Starting in Fall 2011, students who complete the general education core requirements at one University of Hawai'i campus before transferring will be considered upon transfer to have satisfied the general education core requirements at any other University of Hawai'i campus.

#### Associate in Arts Degree

The Associate in Arts degree is awarded to students who complete a general program of liberal arts courses which may be applied to meet baccalaureate degree requirements at a four-year college or to fulfill the general education interests of the student. Students who plan to transfer to other colleges, including the University of Hawai'i at Mānoa, should work closely with a counselor to help ensure that courses taken for the AA degree are also applicable at their next campus.

#### Associate in Science Degree

The Associate in Science degree is designed to prepare students for employment in career and technical fields, and/or transfer to a baccalaureate granting institution in a science technology, engineering, mathematics or other articulated baccalaureate-level programs of study.

#### Certificate Programs

The College offers certificate-level programs within the Associate in Arts degree (Academic Subject Certificate) and certificate-level programs (Certificate of Achievement and Certificate of Competence), which are designed to prepare students for entry-level employment or upgrading of work skills in several vocational fields.

In the vocational area, certificates are offered in Agripharmatech, Veterinary Assisting, and Web Support.

In the Associate in Arts degree, most credits completed in certificate-level programs (Academic Subject Certificate) may be applied to meet the Associate in Arts degree program requirements.

#### Certificate of Achievement (CA)

A college credential for students who have successfully completed designated medium-term technical-occupational-professional education credit course sequences, which provide them with entry-level skills or job upgrading. These course sequences shall be at least 24 credit hours but may not exceed 45 credit hours (unless external employment requirements exceed



this number). The issuance of a Certificate of Achievement requires that the student must earn a GPA of 2.0 or better for all courses required in the certificate.

### **Certificate of Competence (CO)**

A college credential for students who successfully complete designated short-term credit or non-credit courses that provide them with job upgrading or entry-level skills. The issuance of a Certificate of Competence requires that the student's work has been evaluated and determined to be satisfactory. Credit course sequences shall be at least 4 but less than 24 credits. In a credit course sequence the student must earn a GPA of 2.0 or better of all courses required in the certificate.

### **Academic Subject Certificate (ASC)**

A college credential for students who have successfully completed a specific sequence of credit courses from the Associate in Arts (AA) curriculum. The sequence must fit within the structure of the AA degree, may not extend the credits required for the AA degree, and shall be at least 12 credit hours. The issuance of the Academic Subject Certificate requires that the student must earn a GPA of 2.0 or better for all courses required in the certificate.

### **Additional Offerings**

#### **Cooperative Education**

This program offers students opportunities to participate in career related experiences designed to reinforce skills learned in different areas and to apply these skills in actual job situations.

#### **Distance Learning**

Distance Learning provides classes to students outside of the classroom through cable, interactive television, and the internet.

#### **Independent Studies**

This program offers students the opportunity to participate in the creation of academic learning experiences designed to meet individual needs, interests, aptitudes and desired outcomes. It is intended to serve the student, who after completing the requirements of an introductory course, may wish to continue an in-depth study of a particular topic or issue previously covered, or who may wish to reinforce understanding of concepts or relationships covered.

A student at the College, under faculty supervision, may design an independent study project at any of three levels: Vocational (099) or Academic (199)/(299). An independent study project could take the form of directed reading, research, or fieldwork experience. Students are encouraged to develop original projects and the project must be appropriate to the student's program of study, related to the existing college curriculum, and in the area of the supervising instructor's and/or co-advisor's expertise.

Independent study projects are undertaken with at least one

student selected faculty advisor. The advisor must be a member of the College faculty and participation by this faculty member is voluntary. The advisor serves as a facilitator of learning, guiding the student in establishing and achieving the goals of the independent project. An advisor may recommend particular preparation before a student undertakes a project.

No more than 12 credits in any combination of independent study or cooperative education can be applied to meet the Associate Degree requirements. Procedural details may be obtained through an instructor or the Vice Chancellor for Academic Affairs' Office. The deadline for registration in an independent study course is October 10 for the Fall semester and March 1 for the Spring semester. If these dates should fall on a weekend, the deadline is the following Monday. Students who request an Independent Study must meet the Admission deadline. If students who request Independent Study are not enrolled in other classes, a late fee will apply.

#### **Military Science Courses**

Military science and air science courses are offered through the University of Hawai'i at Mānoa. Windward students making satisfactory academic progress may enroll in these courses as concurrent students. For further information, contact the military departments at the UH Mānoa campus.

#### **Online Learning**

Online learning takes place primarily on the Internet, although students may be required to do outside activities and to take tests at official proctoring sites. To take an online class, a student must have access to a computer, the Internet, and a UH email account. Online courses require the use of Laulima, University of Hawai'i's online course system (<http://laulima.hawaii.edu>). The instructor will provide students with a list of software that will be needed, which should be purchased and/or downloaded before the first day of class. Students should actively participate in the online discussions forums, chats, and other forms of online interaction in their course to maximize learning. Communication, time management, and other skills crucial to success in the online learning environment are discussed at WCC's online information page <http://windward.hawaii.edu/online>. Here, one can also find useful Web pages and other relevant information.

#### **Service-Learning**

Service-Learning is a learning option in designated courses at Windward Community College. Students who opt for Service-Learning earn partial course credit by actively applying the skills and perspectives taught in academic courses in ways that benefit the community. Students work with instructors and the Service-Learning office to select approved community sites. Service-Learning enhances the academic experience by incorporating a real-world component to the curriculum, as well as fostering civic responsibility, career exploration, and community connections in students.

## Degrees & Certificates



Cooperative Education experiences are offered in Agriculture and Social Sciences, and are being planned in other disciplines. See each subject area and/or the department for eligibility requirements, prerequisites and information on procedures for setting up such a course.

### **Sustainability or S-designated courses**

Sustainability (S) designated courses are designed to teach students about sustainability across a variety of academic disciplines. They are part of a growing system wide effort to teach students ecological literacy and make the University of Hawaii system a leader in sustainability. These courses are not a graduation requirement, but the designation can steer students towards courses that address environmental issues. Sustainability designated courses encourage students to learn about the social, cultural, economic, political, scientific, and artistic approaches to sustainability, recognizing the valuable contributions from each academic discipline to thinking about the health of the planet and local communities. Sustainability designated courses may be either S-focused or S-related.

S-focused- these courses focus primarily on sustainability from within a given academic discipline and/or the course will examine an issue or topic using sustainability as a lens.

S-related- these courses include some assignments and course content that addresses issues of sustainability.

### **S-Designation Hallmarks**

- A significant component of readings, assignments and other course materials address environmental topics.
- The course teaches students to think critically and examine environmental challenges and debates on an international, national and local level.
- Students learn the underlying causes of environmental challenges and explore ways to address these challenges.

## **Transferring to Another College**

Many Windward Community College students transfer to other colleges and universities to complete their studies. Each college or university sets its own rules concerning the credits that they will accept and the requirements for transferring students. Therefore, students should read the catalogs from prospective colleges carefully and consult with a counselor for full information.

Generally speaking, students earn 60 credits of courses with numbers of 100 and above before transferring to another institution. (Courses numbered below 100 are usually not accepted in transfer by four-year colleges.) The number of credits that you should take at the College depends on the rules of the institution that you want to transfer to, as well as the major field that you wish to study.

### When to Apply for a Transfer

Students should plan to apply at least one semester before they plan to enroll at a new school. Some colleges have early deadlines; specific information can be found in college catalogs and websites. Deadline dates pertain to the admissions application form and require receipt of official transcripts from all colleges previously attended by that date.

### Transferring Credits

The transfer school will evaluate transcripts and determine which credits will be accepted as part of the degree that you are seeking there. There is no physical transfer of actual credits; your permanent academic record at Windward Community College always remains here. Normally, courses numbered 100 and above are transferable if you are going to a four-year college, but not all of the courses 100 and above will meet the basic requirements (some will be electives).

### Auto Notation of Academic Credentials

A student will be notified of the potential to earn a credential when enrolled in coursework that will fulfill requirements to complete a certificate or degree. Upon successful completion of requirements, academic credential will be notated on the student's official transcript, unless the awarding institution is informed not to notate the completed credential at the request of the student. Notation of the academic credential will be completed at no cost to the student.

### Transferring to the UH Mānoa Campus

It's important to observe deadlines when applying to UH Mānoa. Send for official transcripts from other colleges in plenty of time to reach UH Mānoa by the published application deadlines. UH Mānoa accepts credits that have been completed with a grade of 'D' (not 'D-') or better.

Credit/No Credit grading options at Windward Community College need to be avoided if you expect to use the course in fulfillment of UH Mānoa core or major requirements. UH Mānoa will apply Credit/No Credit marks only to electives, but not to requirements (unless you had no choice because the course was offered for a mandatory Credit/No Credit grade).

UH Mānoa requires 60 or more credits of non-introductory courses for its bachelor degrees. Non-introductory courses are courses numbered 300 and above (or any other courses with explicit college-level prerequisites published in the catalog).

See a counselor at Windward Community College for help in planning to meet the specific requirements for a bachelor's degree at UH Mānoa. Students are encouraged to visit the UH Mānoa Advising Center for degree requirement and advising at UH Mānoa.

To enter the UH Mānoa campus as a transfer student, at least 24 credits of college-level work (courses numbered 100 and above), with a grade point average of 2.0 or better are required. Students may have more than 24 credits, but they still need to

have a 2.0 or better grade point average. If a student wishes to enter the UH Mānoa campus with fewer than 24 credits, she or he will need to provide SAT (or ACT) test scores and their high school grades.

### Ka'ie'ie Program Supporting Transfer to UH Mānoa

The Ka'ie'ie Transfer Program is a dual-admission, dual-enrollment program between Windward Community College and the University of Hawai'i at Mānoa. This program is for students who plan to transfer to UH Mānoa to obtain a four-year degree, but choose to begin their degree at WCC. It is designed to facilitate a smooth and successful transfer experience from WCC to UH Mānoa. For more information, please contact the Ka'ie'ie counselor at 808-235-7464.

### Transferring to Institutions Other than UH Mānoa

Students planning to transfer to a college outside the UH System are urged to review college catalogs and website information and to consult a counselor early in their college career so that a planned program can be arranged to meet the general education and admissions requirements of the college to which they plan to transfer. It is the student's responsibility to obtain accurate information from any college or university that is being considered for transfer.

### Auto Admission and Reverse Transfer

Automatic admission and reverse transfer are two University of Hawai'i system initiatives designed to better serve students who transfer between the two year and four year campuses.

The admissions standards at UH remain unchanged, but these procedural changes will expedite a student's ability to enroll and to finish a degree program. Automatic admission will admit a student that meets 97% of the graduation requirements from one of the seven community colleges to one of the three baccalaureate campuses. For community college students who transfer before receiving a degree, reverse transfer will lead to a credit review to determine if they have earned their associate's degree. See a counselor for more information.



# Graduation Requirements

## Graduation Certification

Students should consult with their counselor/academic advisor at least one semester prior to registering for their projected final semester of study. For specific graduation requirements, see the programs of study listed in the catalog.

Students who intend to file for graduation must have a graduation certification done by a counselor prior to filing a graduation application form by the deadline with Admissions & Records Office. The graduation fee of \$15 is payable upon submission of the application for graduation.

## Scholastic Standards

A cumulative 2.0 grade point average is required for graduation with the associate's degree. At least 12 of the credits for the associate's degree must be earned at Windward Community College. Students completing certificate program requirements must successfully complete credits in specified fields and maintain a cumulative grade point average of 2.0. At least 20% of the required courses for the certificate must be earned at the College. Under certain circumstances, this requirement may be waived upon a request made to the Vice Chancellor for Academic Affairs.

## The Associate in Arts Degree

The Associate in Arts (AA) degree is a two-year transfer liberal arts degree consisting of at least 60 semester credits at the 100 and 200 levels.

To earn an AA degree, Windward Community College students must complete 60 credits in courses numbered 100 or above with a grade point average of at least 2.0. Students who are awarded an AA degree from a UH Community College must have a community college cumulative GPA of 2.0 or higher for all course work taken in fulfillment of AA degree requirements.

At least 12 of the credits for the AA degree must be earned at Windward Community College. No more than 12 credits in any combination of independent study or cooperative education may apply to the degree requirements. Credits must be earned in the required areas. Underlined courses are infrequently offered.

Students will follow the program requirements stated in the course catalog at the time of their initial enrollment, providing that the student has been continually enrolled. Continual enrollment is defined as attending each semester (excluding summer session) for at least one credit hour of coursework. Students who have a break in enrollment will be subject to the degree requirements in effect at the time of re-enrollment.

## Program Learning Outcomes

### Global and Cultural Awareness

Develop the ability to perceive how people interact with their cultural and natural environments, through their own

worldview and through the worldviews of others, in order to analyze how individuals and groups function in local and global contexts. Specific outcomes in Global and Cultural Awareness may include:

- Analyze and empathize with the attitudes and beliefs of other cultures
- Identify instances where cultural norms affect cross-cultural communication
- Explore how various factors shape a culture's development and values and one's sense of place
- Take an active role in the community (work, service, co-curricular activities)

### Critical Thinking and Creativity

Make judgments, solve problems, and reach decisions using analytical, critical, and creative thinking skills. Specific outcomes in Critical Thinking and Creativity may include:

- Identify challenges and problems and find solutions through creative exploration, scientific and quantitative reasoning, and other forms of inquiry
- Analyze complex ideas to arrive at reasoned conclusions
- Use creative processes to discover potential and to express ideas and beliefs

### Communication

Use written, visual, and oral communication to discover, develop, and communicate meaning, and to respond respectfully to the ideas of others in multiple environments. Specific outcomes in Communication may include:

- Listen to, comprehend, interpret, analyze, synthesize, and evaluate ideas
- Present ideas in a variety of formats, including written, oral, and visual
- Convey ideas and facts to a variety of audiences in various contexts

### Information Literacy

Identify information needed in a variety of situations, and access, evaluate, and use relevant information effectively and responsibly. Specific outcomes in information Literacy may include:

- Determine the nature and extent of information needed in order to accomplish a goal
- Use appropriate resources and methods to access and acquire relevant information
- Critically evaluate information and its sources
- Organize, synthesize, and communicate information to achieve a specific purpose
- Apply ethical, legal, and social standards when using information and information technology

# Graduation Requirements

## General Education Core Requirements

### Written and Oral Communications

Individuals need various modes of expression. These areas provide for the development of clear and effective written and oral communication skills.

**REQUIREMENT:** Three credits in English 100 and three credits selected from Speech courses.

### Symbolic Reasoning\*

Symbolic reasoning courses expose students to the beauty and power of formal systems, as well as their clarity and precision; courses will not focus solely on computational skills. Students learn the concept of proof as a chain of inferences. They learn to apply formal rules or algorithms; engage in hypothetical reasoning; and traverse a bridge between theory and practice. In addition, students develop the ability to use appropriate symbolic techniques in the context of problem solving and to present and critically evaluate evidence.

**REQUIREMENT:** Three credits from selected math courses numbered 100 or above, Philosophy 110, or ICS 141.

\*Please note that in Fall 2018 the Foundations Symbolic Reasoning (FS) requirement will be replaced with the Foundations Quantitative Reasoning (FQ) requirement. During the 2017-2018 academic year, there will be more information provided on how the change in requirements from FS to FQ will impact students.

### Global and Multicultural Perspectives

Global and multicultural perspectives courses provide thematic treatments of global processes and cross-cultural interactions from a variety of perspectives. Students will gain a sense of human development from prehistory to modern times through consideration of narratives and artifacts of and from diverse cultures. At least one component of each of these courses will involve the indigenous cultures of Hawai'i, the Pacific, or Asia.

**REQUIREMENT:** Six credits must come from two of three groups: History 151 or History 152, or Religion 150.

### Arts and Humanities

Through study of artistic, literary, and philosophical masterworks and by examining the development of significant civilizations, cultures, and the nature of human communication, students should gain an appreciation of history and achievements. This experience should enable the student to approach future studies of a more specific character with a broadened perspective.

**REQUIREMENT:** A total of 6 credits selected from two of three groups: Arts, Humanities or Literature.

### Natural Sciences

A scientifically literate person should know what science is, how scientific investigation is conducted, and that the activity

of a scientist is a blend of creativity and rigorous thinking. Experimental investigations in the laboratory provide the student with first hand experience with the scientific method and research.

**REQUIREMENT:** Minimum of 6 credits. Must include a biological science course, a physical science course, and a laboratory/field trip course.

### Social Sciences

Every educated person should have some appreciation of the role of culture and social institutions in the shaping of individual personality and the creation of social identities. Students should also develop an understanding of the extent to which scientific inquiry is appropriate to the creation of social knowledge and of the alternative ways of organizing human institutions and interpreting social reality.

**REQUIREMENT:** A total of 6 credits made up of two or more courses from two different subject areas.

### Writing Intensive Courses

Writing Intensive (WI) Courses are part of a University of Hawai'i systemwide movement to incorporate more writing in courses from all disciplines. A WI course is a discipline-specific course in which writing plays a major integrated role. Students in course sections designated as a "WI" (preceding the course title in the Schedule of Classes) learn to understand course content through writing and to write in ways appropriate to that discipline. English 100 is a prerequisite before students take the two required WI courses for the Associate in Arts degree. Students transferring to some bachelor's degree campuses in the UH system may bring two or three WI courses with them to count for the bachelor's degree. The hallmarks of a writing intensive course are:

- Writing promotes learning of course content.
- Writing is considered to be a process in which multiple drafts are encouraged.
- Writing contributes significantly to each student's course grade.
- Students do a substantial amount of writing, a minimum of 4,000 words. Depending on the types of writing appropriate to the discipline, students may write critical essays or reviews, journal entries, lab reports, research reports or reaction papers.

To allow for meaningful teacher-student interaction on each student's writing, the class is restricted to 20 students.

**REQUIREMENT:** Two Writing Intensive (WI) courses are required.

### Mathematics

Students must qualify to take Math 100 or higher.

# The Associate in Arts Degree



## Graduation Requirements:

### Writing Intensive (WI)

Required: A total of 2 courses

### Mathematics

Students must have placement into Math 100, or successfully complete Math 25 or higher with a grade of "C" or better.

### Oral Communication (OC)

Required: A total of 3 credits

SP 151, 181, 231, 251, 253

THEA 222

## Foundations Requirements:

### Written Communication (FW)

Required: A total of 3 credits

ENG 100

### Global & Multicultural Perspectives (FG)

Required: A total of 6 credits from 2 different groups.

Group A: ANTH 151, ART 175, HIST 151

Group B: ANTH 152, ART 176, GEOG 102 (if taken at WCC Fall 2015 or after), HIST 152

Group C: REL 150 (If taken at WCC Fall 2008 or after)

### Symbolic Reasoning (FS)

Required: A total of 3 credits

ICS 141, 241 (if taken at WCC Fall 2016 or after)

MATH 100, 103, 112, 135, 140, 203, 205

PHIL 110

## Diversification Requirements:

### Arts, Humanities and Literature

Required: A total of 6 credits, each course selected from two different groups.

#### Arts (DA)

ART 101, 104D, 105B, 105C, 107, 108, 111, 113, 114, 115, 116, 123, 189, 202, 207, 208, 213, 214, 220, 223, 224, 243, 244, 251, 253, 260  
CM 120, 220

DNCE 121, 131, 122, 132, 221, 231

ENG 204A, ENG 204B, ENG 204C

HUM 100, 269V

HWST 130, 131, 135, 136, 222

ICS 203

JOUR 120, 220, 270

MUS 108, 114\*, 121B\*, 121C\*, 121D\*, 121F\*, 121Z\*, 122B\*, 122C\*, 122F\*, 122Z\*, 130F\*, 221C\*, 222C\*, 240, 253

SP 151, 231, 251, 253

THEA 101, 131, 132, 211, 220, 221, 222, 240, 260, 280

*\*Any combination that totals 3 credits will be considered the equivalent of one semester course.*

#### Humanities (DH)

ART 269V

HWST 107, 115, 140, 255, 270, 273, 275, 275L, 285

HIST 230, 231, 232, 241, 242, 260, 281, 282, 284

LING 102

MUS 106, 107, 166, 177

PHIL 100, 101, 102, 211, 213

REL 150 (up to and including Spring 2008) 151, 201, 202, 205, 206, 207

#### Literature (DL)

ENG 270, 271, 272

### Natural Sciences

Required: A minimum of 6 credits with 3 credits from the biological science area (DB) and 3 credits from the physical science area (DP). In addition, the student must take a science laboratory/field trip course (DY).

*Note: BOLD TEXT denotes Natural Science courses that fulfill both a lecture (as DB or DP) and a lab (DY) requirement simultaneously.*

#### Biological Sciences (DB)

AG 120, 152

ANSC 142, 151, 152, 253, 261, 262, 271

AQUA 106, 201

BIOL 100, **101**, 124, 171, 172, 200, 265, 275



# Graduation Requirements

BOT **101, 130, 160, 205, 210**

FSHN 185

IS **201**

MICR 130

PHRM 203

ZOOL 101, 141, 142, 154, 200, 254

## Physical Sciences (DP)

AERO 150

ASTR 110, 130, 180, 181, 250, 281, 294V

BIOC 141

CE 270

CHEM 100, 151, 152, 161, 162, 272, 273

EE 211

GEOG 101

GG 101, 103

MET 101

OCN 120, 201

PHYS 122, 151, 152, 170, 272, 274

SCI 160A or 160B, 260A or 260B

## Natural Sciences Lab (DY)

ANSC 142L, 151L, 152L, 261L, 262L, 271L

AQUA 106L, 201L

ASTR 110L, 250L

BIOL 100L, **101**, 124L, 171L, 172L, 200L, 265L, 275L

BOT **101, 130, 205, 210**

CHEM 100L, 151L, 152L, 161L, 162L, 272L, 273L

EE 211

GEOG 101L

GG 101L, 210, 211, 212, 213, 214

IS **201**

MICR 140

OCN 201L

PHYS 122L, 151L, 152L, 170L, 272L

SCI 260L

ZOOL 101, 141L, 142L, 200L

## Social Sciences (DS)

Required: A total of 6 credits from 2 different subject areas.

ANTH 175, 175L, 210

BOT 105

ECON 130, 131, 220

FAMR 230

GEOG 151, 252

JOUR 150

PACS 108

POLS 110, 120, 130, 180, 243

PSY 100, 170, 202, 224, 240, 250, 251, 260, 270

SOC 100, 218, 231, 251

SOCS 225

SP 260

WS 151, 200, 202

*Note: Generally, any one course can fulfill only one area, e.g., SP 151,*

*SP 231, SP 251 can fulfill either OC or DA, but not both.*

*Certain Natural Sciences courses can fulfill both DB and DY requirements.*

## Art Concentration

The Associate in Arts Degree in Liberal Arts with a Concentration in Art provides students with a strong studio art experience and art history curriculum that integrates conceptual and technical artistic skills with personal and creative exploration.

Required courses (6 credits):

ART 113\*,\*\* Introduction to Drawing (3)

ART 116\*,\*\* Introduction to Three-Dimensional Composition (3)

Art Concentration Electives (9 credits):

Select three additional art studio lab courses from the list below.

For any courses listed below which may be repeatable, only three (3) credits may be applied to the Art Concentration Elective (ACE) Requirement. When a course has fulfilled the ACE Requirement and is then repeated, the additional three (3) credits may be applied to either the Diversification in Arts (DA) or General Elective Requirements.

ART 105B Introduction to Ceramics – Handbuilding (3)

ART 105C Introduction to Ceramics – Wheelthrowing (3)

ART 243 Intermediate Ceramics - Handbuilding(3)

ART 244 Intermediate Ceramics – Wheelthrowing (3)

ART 253 Figure Modeling (3)

ART 107\* Introduction to Photography (3)

ART 207\* Intermediate Photography: Techniques/Aesthetics (3)

ART 111 Introduction to Watercolor Painting (3)

ART 114 Introduction to Color (3)

ART 115 Introduction to Design (3)

ART 123\* Introduction to Oil Painting (3)

ART 223\* Intermediate Painting (3)

ART 213\* Intermediate Drawing (3)

ART 214\* Introduction to Life Drawing (3)

ART 224 Painting from Life (3)

ART 189 Introduction to Hawaiian Visual Art & Design (3)

ART 260 Gallery Design and Management (3)

ART 202 Introduction to Digital Imaging (3)

ART 104D Introduction to Printmaking – Screen Printing (3)

\* Course articulates with UH Mānoa Art department course.

\*\* Course cannot be used to fulfill AA Liberal Arts Diversification in Arts (DA) requirement when used to fulfill the Art Concentration requirement.

# Associate in Arts in Hawaiian Studies



The Associate in Arts in Hawaiian Studies is a 60-credit degree that is a foundational degree in Hawaiian knowledge and culture. The AA degree is patterned after WCC's current liberal arts AA degree, and is an option for students seeking an associate degree and subsequent entry into most baccalaureate programs at UH Mānoa, UH Hilo and UH-West O'ahu. The degree is also a pathway for entrance into either UH Mānoa or UH Hilo Hawaiian Studies Programs. The AAHS also provides students with qualifications that will be useful in the workforce where understanding of the host culture or application of Hawaiian knowledge is desired.

## Program Outcomes

Upon successful completion of the Associate in Arts degree in Hawaiian studies, the student will be able to:

- Describe aboriginal Hawaiian linguistic, cultural, historical, and political concepts.
- Apply aboriginal Hawaiian concepts, knowledge and methods to the areas of science, humanities, arts, and social sciences—in academics and in other professional endeavors.
- Engage, articulate, and analyze topics relevant to the aboriginal Hawaiian community using college-level research and writing methods.

## Graduation Requirements

### Oral Communication Requirement (OC)

Required: 3 credits

SP 151, 181, 231, 251, 253

THEA 222

### Hawaiian Studies Requirements (14 credits)

Hawaiian Studies Core Requirements (6 credits)

HWST 107, 270

Hawaiian Language Requirements (8 credits)

HAW 101, 102

### Writing Intensive (WI)

Required: A total of two courses

The issuance of an AA degree requires that the student must earn a grade point ratio (GPR) of 2.0 or higher for all courses applicable toward the degree.

## Graduation Requirements

### Foundation Requirements (12 credits)

#### Written Communication (FW)

Required: A total of 3 credits  
ENG 100

#### Global and Multicultural Perspectives (FG)

Required: A total of 6 credits; from 2 different groups.  
Group A: HIST 151, ANTH 151, ART 175  
Group B: HIST 152, ANTH 152, ART 176, GEOG 102 (if taken at WCC Fall 2015 or after)  
Group C: REL 150

#### Symbolic Reasoning (FS)

Required: A total of 3 credits  
ICS 141, (if taken at WCC Fall 2010 or after), ICS 241 (if taken at WCC Fall 2016 or after)  
MATH 100, 103, 112, 135, 140, 203, 205  
PHIL 110

### Diversification Requirements (18 credits)

#### Arts, Humanities, and Literature

Required: A total of 6 credits selected from 2 groups:

##### Arts (DA)

ART 189  
HWST 130, 131, 135, 136, 222  
MUS 121F\*, 121Z\*, 122 F\*, 122Z\*, 130F\*  
Any combination that totals 3 credits will be considered the equivalent of one semester course.

##### Humanities (DH)

HIST 284  
HWST 115, 140, 255, 273, 275, 275L, 285  
LING 102  
REL 205

##### Literature (DL)

Only Hawaiian or Polynesian themed literature may be applied.

#### Natural Sciences

Required: A minimum of 6 credits with 3 credits from the biological science area (DB) and 3 credits from the physical science area (DP). In addition, the student must take a science laboratory/field trip course (DY).

*Note: BOLD TEXT denotes Natural Science courses that fulfill both a lecture (as DB or DP) and a lab (DY) requirement simultaneously.*

##### Biological Sciences (DB)

AQUA 201  
BIOL 200  
BOT **130**  
IS **201** ZOOL 200

##### Physical Sciences (DP)

ASTR 110  
GG 103  
OCN 201  
SCI 160 A or B, 260 A or B

##### Natural Sciences Lab (DY)

AQUA 201L  
ASTR 110L  
BIOL 200L  
BOT **130**  
GG 210, 211, 212, 213, 214  
IS **201**  
OCN 201L  
SCI 260L  
ZOOL 200L

#### Social Sciences (DS)

Required: A Total of 6 credits selected from 2 different subject areas:  
ANTH 175, 175L  
BOT 105  
PACS 108  
POLS 180  
Electives (13 credits)  
Required: A total of 13 credits numbered 100 or above.



# Associate in Science in Natural Science



The Associate in Science in Natural Science is a transfer degree designed for students pursuing STEM-related educational and career goals. The courses are designed to prepare students to transfer into science programs at UH Mānoa, UH Hilo, and UH West O‘ahu.

The Associate in Science in Natural Science degree has four concentrations: Biological Science, Engineering, Physical Science and Pre-Computer Science.

## Program Learning Outcomes

Upon successful completion of Associate in Science in Natural Sciences, students will be able to:

- Analyze data effectively using the most currently available technology
- Communicate scientific ideas and principles clearly and effectively
- Analyze and apply fundamental mathematical, physical, and chemical concepts and techniques to scientific issues
- Apply fundamental concepts and techniques in their chosen field of study, such as biology, chemistry, geology, engineering, etc.

## Graduation Requirements

The issuance of an AS degree requires that the student earn a grade point average (GPA) of 2.0 or higher for all courses applied towards the degree.

## Foundation Requirements

### Written Communication (FW)

Required: 3 credits

ENG 100                      Composition I

### Global and Multicultural Perspectives (FG)

Required: 6 credits from 2 different groups

Group A - ANTH 151, ART 175, HIST 151

Group B - ANTH 152, ART 176, GEOG 102 (if taken at WCC Fall 2015 or later), HIST 152

Group C - REL 150

### Symbolic Reasoning (FS)

The requirement will be fulfilled by the MATH requirement in the concentration.

## Diversification Requirements

### Arts, Humanities and Literature (DA, DH, DL)

Required: 3 credits

### Social Sciences (DS)

Required: 3 credits

### Biological or Physical Sciences (DB, DP)

Required for Physical Science and Pre-Computer Science

Concentrations: 3 credits

## Elective Requirements

### Natural Science Electives

Required for Biological Science and Physical Science Concentrations. Natural Science Electives are required in addition to the required Concentration courses (not required for Engineering and Pre-Computer Science Concentrations).

Required: 6 credits of transfer-level Natural Sciences courses (DB, DP, DY) and/or:

EE 160

ICS 111, 141, 211, 241

Math 100, 103, 115 and higher

SCI 295V

### General Electives

Transfer-level courses (100 and 200-level courses) in any field to achieve a total of 60 credits.

## Graduation Requirements

### Concentrations

#### Biological Science Concentration (24 credits)

The Biological Science Concentration is designed for students entering into fields such as biology, botany, and zoology.

BIOL 171	General Biology I (3)
BIOL 171L	General Biology Lab I (1)
BIOL 172	General Biology II (3)
BIOL 172L	General Biology Lab II (1)
CHEM 161	General Chemistry I (3)
CHEM 161L	General Chemistry Laboratory I (1)
CHEM 162	General Chemistry II (3)
CHEM 162L	General Chemistry Laboratory II (1)
MATH 205	Calculus I (4)
BIOL 265/265L	Ecology & Evolutionary Biology/Lab (3/1) <b>OR</b>
BIOL 275/275L	Cell & Molecular Biology /Lab (3/1) <b>OR</b>
CHEM 272/272L	Organic Chemistry I/Lab (3/2) <b>OR</b>
PHYS 151/151L	College Physics I/Lab (3/1)

For students pursuing the Biological Science Concentration, CHEM 161 fulfills the DP (Physical Science Diversification) for the Biological or Physical Sciences Diversification Requirements.

#### Engineering Concentration (33 credits)

The Engineering Concentration is designed for students entering into engineering fields.

CHEM 161	General Chemistry I (3)
CHEM 161L	General Chemistry Laboratory I (1)
CHEM 162	General Chemistry II (3)
MATH 205	Calculus I (4)
MATH 206	Calculus II (4)
MATH 231	Calculus III (3)
MATH 232	Calculus IV (3)
PHYS 170	General Physics I (4)
PHYS 170L	General Physics Laboratory I (1)
PHYS 272	General Physics II (3)
PHYS 272L	General Physics Laboratory II (1)
CE 270	Applied Mechanics I (3) <b>OR</b>
EE 160	Programming for Engineers (4) <b>OR</b>
EE 211	Basic Circuit Analysis I (4) <b>OR</b>
PHYS 274	General Physics III (3) <b>OR</b>
SCI 295V	Introduction to STEM Research (1-3)

Students pursuing the Engineering Concentration do not have a Biological and Physical Sciences Diversification Requirement.

#### Physical Science Concentration (24 credits)

The physical science concentration is designed for students entering into fields such as astronomy, chemistry, geology, oceanography, and physics.

CHEM 161	General Chemistry I (3)
CHEM 161L	General Chemistry Laboratory I (1)
CHEM 162	General Chemistry II (3)
CHEM 162L	General Chemistry Laboratory II (1)
MATH 205	Calculus I (4)
MATH 206	Calculus II (4)

PHYS 151	College Physics I (3) <b>OR</b>
PHYS 170	General Physics I (4)
PHYS 151L	College Physics Laboratory I (1) <b>OR</b>
PHYS 170L	General Physics I Laboratory
PHYS 152	College Physics II (3) <b>OR</b>
PHYS 272	General Physics II (3)
PHYS 152L	College Physics II Laboratory (1) <b>OR</b>
PHYS 272L	General Physics II Laboratory (1)

Students pursuing the Physical Sciences concentration must take at least one Biological Science course (DB) as one of the Biological or Physical Sciences Diversification Requirements.

#### Pre-Computer Science Concentration (31 credits)

An Associate of Science in Natural Science with a Concentration in Pre-Computer Science is a transfer degree designed for students interested in pursuing an academic study and career in fields related to computer science, including database design, website creation, and mobile applications.

CHEM 161	General Chemistry I (3)
CHEM 161L	General Chemistry Laboratory I (1)
CHEM 162	General Chemistry II (3)
CHEM 162L	General Chemistry Laboratory II (1) <b>OR</b>
PHYS 151	College Physics I (3)
PHYS 151L	College Physics Laboratory I (1)
PHYS 152	College Physics II (3)
PHYS 152L	College Physics Laboratory II (1) <b>OR</b>
PHYS 170	General Physics I (4)
PHYS 170L	General Physics I Laboratory (1)
PHYS 272	General Physics II (3)
PHYS 272L	General Physics II Laboratory (1)
MATH 205	Calculus I (4)
MATH 206	Calculus II (4)
ICS 111	Introduction to Computer Science I
ICS 141	Discrete Mathematics for Computer Science I
ICS 211	Introduction to Computer Science II
ICS 212	Program Structure <b>OR</b>
ICS 215	Introduction to Scripting
ICS 241	Discrete Mathematics for Computer Science II

# Associate in Science in Veterinary Technology

The Associate in Science degree in Veterinary Technology combines traditional classroom instruction with intensive hands-on laboratory and practical experience utilizing live animals in a clinical setting. Students enrolled in the program will receive didactic and practical training in pharmacology, radiology, anesthesiology, surgical assisting, dentistry, nutrition, and veterinary office procedures and will learn how to perform over 200 skill sets deemed essential by the American Veterinary Medical Association (AVMA). During the final year of the program, students will intern at some of the over 20 preceptor clinics and shelters associated with WCC where their skills will be evaluated and critiqued by industry professionals. Not only does this experience allow students to hone and apply their skills in a real world setting, it will also serve as a bridge to future employment. The program is accredited by the AVMA.

There is a \$100 professional fee each semester for the first year and a \$300 professional fee each semester for the second year (subject to increase based on program cost and institutional approval).

After completing the program, students will be able to:

- Effectively communicate with clients and veterinary staff.
- Perform routine business transactions and maintain patient and facility records.
- Ensure the safety of patients, clients, and staff and maintain compliance with regulatory agencies.
- Identify common breeds of companion animals, list their nutritional requirements and husbandry needs, and describe the anatomy and functions of major body systems.
- Assist with physical exams and obtain patient histories.
- Perform routine nursing procedures including first-aid, wound-management, and administration of medications and vaccines.
- Develop a working knowledge of common companion animal diseases and their medical treatments.
- Collect biological samples and perform diagnostic laboratory tests.
- Assist with surgical procedures and dental cleaning.

## Curriculum

An AS in Veterinary Technology is awarded to students who complete the required 73 credits. Students in the program must attain and maintain a grade of “C” or better in all classes and maintain a cumulative GPA of 2.0 or higher. If a student withdraws or makes below a grade of “C” in a class, the student may not progress in the program until the course has been repeated successfully. Core classes may only be repeated once; students failing to make a grade “C” or better in a course that has been repeated may be dismissed from the program. Course repetition will be based on instructor approval and program resources.

It is anticipated that students will complete the degree in two years. Students are eligible for the Certificate of Achievement in Veterinary Assisting after the first year. Below are the degree requirements with current course descriptions:

## Year 1: General Education and Preparatory Classes (9 Credits)

ENG 100	Composition I (3)
PSY 100	Survey of Psychology (3)
SP 151	Personal and Public Speech (3) <b>OR</b>
SP 181	Interpersonal Communication (3) <b>OR</b>
SP 231	Performance of Literature (3) <b>OR</b>
SP 251	Principles of Effective Speaking (3) <b>OR</b>
SP 253	Argumentation and Debate (3) <b>OR</b>
THEA 222	Acting II (3)

## Veterinary Assisting Core Classes (22 Credits)

ANSC 140	Introduction to Veterinary Technology (3)
ANSC 142	Anatomy & Physiology of Domestic Animals (3)
ANSC 142L	Anatomy of Domestic Animals Laboratory (1)
ANSC 151	Clinical Laboratory Techniques (3)
ANSC 151L	Clinical Laboratory Techniques Laboratory (1)
ANSC 153	Companion Animal Nursing and Nutrition (3)
ANSC 153L	Companion Animal Nursing Lab (1)
ANSC 191	Veterinary Office and Computer Skills (3)
HLTH 125	Survey of Medical Terminology (1)
MATH 101	Mathematics for Veterinary Assistants & Technicians (3)

## Year 2: Associate in Science in Veterinary Technology

### Humanities (3 credits)

### Veterinary Technology Core Classes (39 Credits)

ANSC 152	Companion Animal Diseases (3)
ANSC 190	Clinical Practices & Internship I (3)
ANSC 252	Diagnostic Imaging for Veterinary Technicians (3)
ANSC 252L	Diagnostic Imaging for Vet Tech Lab (1)
ANSC 253	Pharmacology for Veterinary Technicians (3)
ANSC 258	Clinical Laboratory Techniques II (3)
ANSC 258L	Clinical Laboratory Techniques II Lab (1)
ANSC 261	Anesthesiology & Dentistry for Veterinary Technicians (3)
ANSC 261L	Anesthesiology & Dentistry for Vet Tech Lab (2)
ANSC 262	Clinical Procedures for Large Animals (3)
ANSC 262L	Clinical Procedures for Large Animals Lab (1)
ANSC 263	Exotic and Laboratory Animal Procedures (3)
ANSC 263L	Exotic and Laboratory Animal Procedures Lab (1)
ANSC 266	Clinical Practices & Internship II (3)
ANSC 271	Anesthesiology & Surgical Nursing for Vet Tech (3)
ANSC 271L	Anesthesiology & Surgical Nursing for Vet Tech Lab (2)
ANSC 290	Veterinary Technician Exam Review (1)



# Art: Drawing and Painting



The purpose of this Academic Subject Certificate in Art: Drawing and Painting is to provide pre-professional training for students planning careers in the Visual Arts in the areas of drawing and painting. The certificate would meet the goals of students who plan to (1) transfer to a four-year institution and earn a Bachelor of Fine Arts degree (BFA) and/or, (2) become a professional artist exhibiting in galleries and completing portraiture commissions, and/or, (3) enter a career in commercial art.

Upon successful completion of this certificate, students will be able to:

- Make accurate drawings and paintings from observation.
- Apply the visual elements of line, shape, light and shadow, color, texture, and the design principles of balance, rhythm, focal points, implied movement, and unity in works of art.
- Draw the human figure accurately and expressively.

## Exit Portfolio Review

Completion of the Academic Subject Certificate in Art: Drawing and Painting requires a portfolio review. The student must consult with the full-time faculty in drawing and painting in preparation for his or her exit portfolio review. A review committee will be formed consisting of two faculty members in drawing and painting. The portfolio submission will occur in the week following spring break, or at the end of the first Summer Session, if the student completed the Windward Atelier as his or her last studio art course.

The student's exit portfolio must include six to eight drawings

and three to four paintings that demonstrate that the student has developed his or her skills in observational and figurative drawing and painting. A student's work must pass the portfolio review in order to receive the Academic Subject Certificate. The portfolio review is the capstone of the Academic Subject Certificate in Art: Drawing and Painting.

The Academic Subject Certificate in Art: Drawing and Painting consists of 21 credits. At least half of the classes must be taken at WCC. See course descriptions for prerequisites.

## Required Courses

ART 113	Introduction to Drawing (3)
ART 114	Introduction to Color (3)
ART 115	Introduction to 2D Design (3)
ART 123	Introduction to Oil Painting (3)
ART 213	Intermediate Drawing (3)
ART 214	Introduction to Life Drawing (3)
ART 223	Intermediate Painting (3) <b>OR</b>
ART 224	Painting from Life (3)

## Other Requirements

Approved Portfolio review required for graduation

In addition, the drawing and painting faculty strongly recommend that the student complete:

ART 101	Introduction to the Visual Arts (3)
ART 111	Introduction to Watercolor Painting (3)

## Academic Subject Certificate

# Bio-Resources and Technology: Bio-Resource Development and Management



The Academic Subject Certificate in Bio-Resources and Technology: Bio-Resource Development and Management will prepare students for careers in environmental science/studies and qualify them to transfer to Bachelor of Science degree programs. Knowledge and training in Bio-Resource Development and Management will be an asset to the productive and efficient use of natural resources for promoting sustainable management of our environment.

This Certificate consists of 26 credits. See course descriptions for prerequisites.

Upon successful completion of this certificate, students will be able to:

- Integrate basic environmental science concepts with traditional and modern resource management practices in recommending environmental management decisions.
- Exhibit best management practices when extracting and utilizing natural resources.
- Design and implement an environmental study.
- Effectively use laboratory and field instrumentation to collect data.
- Analyze and interpret environmental data.
- Write an objective technical report involving the presentation and analysis of environmental data.

### Required Courses (14 credits)

BIOL 101*	Biology and Society (4)
GEOG 101**	The Natural Environment (3)
IS 201	The Ahupua'a (3)
BIOL 124***	Environment and Ecology (3)
BIOL 124L ***	Environment and Ecology Lab (1)

*\*BIOL 171/171L & 172/172L (General Biology I & II plus labs; 8 credits total) may replace BIOL 101. BIOL 171/171L & 172/172L are highly recommended for those students intending to major in an environmental science discipline at a four-year institution.*

*\*\*GG 101 (Introduction to Geology; 3 credits) may replace GEOG 101.*

*\*\*\*Students may also replace the BIOL 124/124L requirement with BIOL 172/172L provided they take BIOL 265/265L in Elective Set 2.*

### Elective Set 1 (6 credits)

#### Technology, Utilization, and Management

AQUA 106	Small Scale Aquaculture (3)
AQUA 106L	Small Scale Aquaculture Laboratory (1)
AQUA 201	The Hawaiian Fishpond (3)
AQUA 201L	The Hawaiian Fishpond Lab (1)
BOT 105	Ethnobotany (3)
CHEM 151/151L	Elementary Survey of Chemistry/Lab (4)
ENVST 199/299	Independent Study (1-4)
ZOOL 105	Hawaiian Use of Fish & Aquatic Invertebrates (3)

### Elective Set 2 (6 credits)

#### Environment and Ecology

BIOL 200	Coral Reefs (3)
BIOL 200L	Coral Reefs Lab and Field Studies (1)
BIOL 265*/265L*	Ecology and Evolutionary Biology/Lab (4)
BOT 130	Plants in the Hawaiian Environment (4)
ENVST 199/299	Independent Study (1-4)
GEOG 101L*	The Natural Environment Lab (1)
GG 103	Geology of the Hawaiian Islands (3)
HIST 285	Environmental History of Hawai'i
OCN 201	Science of the Sea (3)
ZOOL 200	Marine Biology (3)
ZOOL 200L	Marine Biology Laboratory (1)

*\*BIOL 265/265L and GEOG 101L are highly recommended for those students intending to enroll in a baccalaureate-level environmental science program.*

# Business

The Academic Subject Certificate in Business is a college credential for students who have completed a specific sequence of credit courses that prepare and qualify them for transfer to a four-year college. This certificate is designed to provide Windward Community College students with recognition for their accomplishments and to also serve as an indication to potential employers that students who have earned an Academic Subject Certificate have specific prerequisite business skills.

Upon successful completion of this certificate, students will be able to:

- Utilize the appropriate computer applications to produce professional-level documents, including electronic spreadsheets, presentations, databases, and web pages to enhance effective communication.
- Understand and apply basic accounting skills such as recording, posting, summarizing, and interpreting financial data of an organization.
- Develop a working understanding of skills required for effective management of a business, including but not limited to communications, administrative, technical, human relations, and problem solving.
- Develop a basic understanding of ethical and moral issues involved in and related to the use of computer technology,

the misuse of accounting information, and employment issues of women and other minority groups.

This Certificate consists of 24 credits. The sequence of courses required for the Academic Subject Certificate in Business is designed to provide a foundation in accounting, economics, computer science, and written and oral communications, while also qualifying for articulation as transfer credits to four-year college business degree programs. See course descriptions for prerequisites.

Please note that completing the sequence of courses below does not automatically qualify a student for entrance in a four-year college program. There may be other required courses. See your WCC counselor or check the four-year institution's applicable program requirements or its current catalog.

## Required Courses (24 credits)

ACC 201	Intro to Financial Accounting (3)
ACC 202	Intro to Managerial Accounting (3)
ECON 130	Principles of Economics (Microeconomics) (3)
ECON 131	Principles of Economics (Macroeconomics) (3)
ENG 100	Expository Writing (3)
ENG 209	Business Writing (3)
ICS 101	Digital Tools for the Information World (3)
SP 151	Personal and Public Speech (3) <b>OR</b>
SP 251	Principles of Effective Speaking (3)





## Academic Subject Certificate

# Hawaiian Studies



The ASC in Hawaiian Studies prepares students for careers in education, the visitor industry, or in fields requiring expertise in Hawaiian subject matter.

Upon successful completion of this certificate, students will be able to:

- Access sources of information about Hawai'i and Hawaiian Studies
- Critically analyze information about Hawai'i and Hawaiian Studies
- Communicate, applying correct Hawaiian pronunciation, spelling, basic phrase and sentence patterns
- Apply a firm foundation to continued Hawaiian language acquisition
- Demonstrate a basic understanding of Hawai'i, its natural and social history, and its Hawaiian heritage
- Identify Hawaiian environmental and community issues and ways to contribute to Hawai'i by applying information and understanding gained from the ASC in Hawaiian Studies
- Understand, appreciate, articulate, and safeguard Hawai'i, its unique heritage and identity through having attained the ASC in Hawaiian Studies.

This certificate consists of a minimum of 24 total credits with five different areas of emphasis: Language, History/Culture, Science, and Performing and Visual Arts. See course descriptions for prerequisites.

### Ke Kahua – Core Courses (11 credits)

HWST 107	Hawai'i Center of the Pacific (3)
HAW 101	Elementary Hawaiian Language I (4)
HAW 102	Elementary Hawaiian Language II (4)

### Areas of Concentration (8-9 credits)

#### 'Ōlelo Hawai'i (Hawaiian Language) (8 credits)

HAW 201	Intermediate Hawaiian Language I (4)
HAW 202	Intermediate Hawaiian Language II (4)

#### Mo'olelo Hawai'i (Hawaiian History and Traditions) (Any 9 credits from list below)

HIST 284	History of the Hawaiian Islands (3)
HWST 115	Mo'okū'auhau: Hawaiian Genealogy (3)
HWST 255	Intro to the Hawaiian Kingdom (3)
HWST 270	Hawaiian Mythology (3)
POLS 180	Introduction to Hawaiian Politics (3)
REL 205	Understanding Hawaiian Religion (3)

#### Hawaiian Performing Arts (Any 9 credits from list below)

HWST 130	Hula 'Ōlapa (3)
HWST 131	Hula 'Ōlapa 'Elua (3)
MUS 121F	Beginning Slack Key Guitar (2)

## Graduation Requirements

MUS 121Z	Beginning 'Ukulele (2)
MUS 122F	Intermediate Slack Key Guitar (2)
MUS 122Z	Intermediate 'Ukulele (2)
MUS 130F	Slack Key Guitar Ensemble (2)
MUS 177	Intro to Hawaiian Music (3)

### Hawaiian Visual Art and Design (Any 9 credits from list below)

ART 113	Introduction to Drawing (3)
ART 189	Ka Unu Pa'a: Introduction to Hawaiian Art and Design (3)
HWST 135	Kālai Lā'au: Hawaiian Woodcarving and Woodwork (3)
HWST 136	Kālai Lā'au II: Advanced Techniques in Hawaiian Woodcarving (3)
HWST 222	Ma'awe No'eu: Hawaiian Fiber Work (3)
HWST 273	Tattoo Traditions of Polynesia (3)

### Ahupua'a (Hawaiian Land and Ocean Systems) (Any 9 credits from list below)

ANTH 175	Polynesian Surf Culture (3)
AQUA 201	The Hawaiian Fishpond (3)
BIOL 200	Coral Reefs (3)
BOT 105	Ethnobotany (3)
BOT 130	Plants in the Hawaiian Environment (4)
GG 103	Geology of the Hawaiian Islands (3)
HWST 140	Mahi Ai I: Hawaiian Taro Culture (3)
HWST 275	Wahi Pana: Mythology of the Landscape (3)
HWST 285	La'au Lapa'au: Hawaiian medicinal Herbs (4)
IS 201	Ahupua'a (3)
SCI 160A or B	Polynesian Voyaging and Seamanship (3)
SCI 260A or B	Polynesian Voyaging and Stewardship (3)
ZOOL 105	Hawaiian Uses of Fish and Aquatic Invertebrates (3)

### Electives (5-8 credits)

Any one course can be used only once in each Academic Subject Certificate.

ANTH 175	Surf Culture (3)
ANTH 175L	Surf Culture Field Lab (1)
AQUA 201	The Hawaiian Fishpond (3)
AQUA 201L	The Hawaiian Fishpond Lab (1)
ART 113	Introduction to Drawing (3)
ART 189	Introduction to Hawaiian Art (3)
ASTR 110	Introduction to Astronomy (3)
BIOL 200	Coral Reefs (3)
BOT 105	Ethnobotany (3)
BOT 130	Plants in the Hawaiian Environment (4)
GG 103	Geology of the Hawaiian Islands (3)
GG 210	O'ahu Field Geology (1)
GG 211	Big Island Field Geology (1)
GG 212	Maui Field Geology (1)
GG 213	Moloka'i, Lāna'i & Kaho'olawe Field Geology (1)
GG 214	Kaua'i and Ni'ihau Field Geology (1)
HAW 201	Intermediate Hawaiian I (4)
HAW 202	Intermediate Hawaiian II (4)
HWST 115	Mo'okūauhau: Hawaiian Genealogies (3)

HWST 130	Hula 'Ōlapa: Traditional Hawaiian Dance (3)
HWST 131	Hula 'Ōlapa 'Elua: Traditional Hawaiian Dance II (3)
HWST 135	Kālai Lā'au: Hawaiian Woodwork and Wood Carving (3)
HWST 136	Kālai Lā'au: Hawaiian Woodwork and Wood Carving (3)
HWST 140	Mahi 'Ai I: Hawaiian Taro Culture (3)
HWST 222	Ma'awe No'eu: Hawaiian Fiber Work (3)
HWST 255	Introduction to the Hawaiian Kingdom (3)
HWST 270	Hawaiian Mythology (3)
HWST 273	Tattoo Traditions of Polynesia (3)
HWST 275	Wahi Pana: Mythology of the Hawaiian Landscape (3)
HWST 275L	Wahi Pana: Mythology of the Hawaiian Landscape Field Lab (1)
HWST 285	Lā'au Lapa'au I: Hawaiian Medicinal Herbs (4)
HWST 296	Special Topics in Hawaiian Studies (3)
HIST 284	History of Hawai'i (3)
IS 201	The Ahupua'a (3)
MUS 121F	Beginning Slack Key Guitar (2)
MUS 121Z	Beginning 'Ukulele (2)
MUS 122F	Intermediate Slack Key Guitar I (2)
MUS 122Z	Intermediate 'Ukulele (2)
MUS 130F	Slack Key Guitar Ensemble (2)
MUS 177	Introduction to Hawaiian Music (3)
OCN 201	Science of the Sea (3)
OCN 260	Pacific Surf Science and Technology (3)
OCN 260L	O'ahu Surf Science and Technology Lab (1)
PACS 108	Pacific Worlds: An Introduction to Pacific Islands Studies (3)
POLS 180	Introduction to Hawaiian Politics (3)
REL 205	Understanding Hawaiian Religion (3)
SCI 160A or B	Polynesian Voyaging and Seamanship (3)
SCI 160L	Polynesian Voyaging and Seamanship Lab (1)
SCI 260A or B	Polynesian Voyaging and Stewardship (3)
SCI 260L	Polynesian Voyaging and Stewardship Lab (1)
ZOOL 105	Hawaiian Use of Fish & Aquatic Invertebrates (3)

## Academic Subject Certificate

# Psycho-Social Developmental Studies

The ASC in Psycho-Social Developmental Studies provides pre-professional training for students planning careers in human services (social work, counseling, education, corrections, psychology, and human development). The curriculum combines existing liberal arts courses and cooperative education at designated field sites in partnership with a social service agency or hospital. This certificate is unique because of the linkage and collaboration with liberal arts courses (interdisciplinary).

Upon successful completion of this certificate, students will be able to:

- Communicate effectively via writing, speaking and non-verbal cues
- Manage a group by supervising, negotiating, evaluating others, fostering teamwork and open communication
- Operate a computer to manage records, communicate, and gather information
- Interact effectively and ethically one-on-one or in a group, show good listening skills, empathy, and problem-solving.

To earn the PSDS Academic Subject certificate, students must complete a total of 27 credits with a cumulative grade point average of 2.0 or better for all required courses.

Twelve credits, including SSCI 193V and SSCI 293V must be taken at Windward Community College. See course descriptions for prerequisites.

### Required Courses (24 credits)

PSY 100	Survey of Psychology (3)
PSY 170	Psychology of Adjustment (3) <b>OR</b>
SOC 218	Introduction to Social Problems (3) <b>OR</b>
SOC 231	Introduction to Juvenile Delinquency (3)
PSY 224	Abnormal Psychology (3)
PSY 240	Developmental Psychology (3) <b>OR</b>
FAMR 230	Human Development
SOC 100	Survey of General Sociology (3)
SOC 251	Introduction to Sociology of the Family (3)
SSCI 193V	Cooperative Arts & Science Education (3)
SSCI 293V	Cooperative Arts & Science Education (3)

### Electives (3 credits)

Select one course from the list below:

BOT 105	Ethnobotany (3)
ICS 100	Computing Literacy and Applications (3)
POLS 180	Introduction to Hawaiian Politics (3)





## Certificate of Achievement Agripharmatech



The Certificate of Achievement in Agripharmatech is organized in two tracks: Plant Biotechnology and Ethnopharmacognosy. Each track consists of 30-32 credits, and requires a unique capstone class (see table below). The plant biotechnology track deals with developing and improving plant production in order to supply the world's need for healthier (decreased use of pesticides) and more nutritious food crops, novel ornamentals, and plant-derived pharmaceuticals. Ethnopharmacognosy is the study of traditional medicines derived from natural sources (medicinal/nutritious plants). Students will be able to complete the certificate in 2-3 semesters with coursework flexible enough to prepare them for employment in agricultural biotechnology or pharmacognosy, for entrepreneurship in agribusiness or plant-based product manufacturing, and for seamless credit transfer to higher degree institutions for the study of agriculture, pharmacy, and related disciplines.

After completing the program, students will be able to:

- Apply knowledge gained in plant sciences: identify plants, propagate/cultivate/maintain plants in vivo and in vitro
- Apply knowledge gained in microbial sciences: prepare/maintain bacterial cultures for genetic transformation and bioassay tests
- Conduct plant biotech and/or pharmacognosy research

In addition, students opting for the biotechnological track will focus on plant molecular genetics, and will:

- Operate specialized lab equipment such as autoclave, gel electrophoresis, PCR machine, Particle Deliver/1000 Helium System, spectrophotometer, fluorescent microscope, Gel Doc System
- Perform DNA/RNA extraction, electrophoresis, PCR reaction, DNA sequencing, gene transformation via bacteria, and particle bombardment, alignment and

## Graduation Requirements

analyzing DA sequence results using Sequencher, PAUP, Finch TV software systems

Students opting for the ethnopharmacognosy track will focus on plant pharmacognostical study, and will:

- Operate laboratory equipment: autoclave, spectrophotometer, stereo microscope, anaerobic transfer chamber, rotary evaporator, distiller, Biacore Q system
- Conduct pharmaceutical and nutraceutical research

### Capstone (4 credits)

#### Ethnopharmacognosy:

BOT 205 Ethnobotanical Pharmacognosy

#### Required Courses (18-19 credits)

AG 152	Orchid Culture (3)
BIOL 172/172L	General Biology II/Lab (3/1) <b>OR</b>
BOT 160	Identification of Tropical Plants (3) <b>OR</b>
BOT 101	General Botany (4)
ENG 100	Composition I (3) <b>OR</b>
SP 151	Personal and Public Speech (3)
MATH 103	College Algebra (4) or higher
MICRO 130	General Microbiology (3)
MICRO 140	General Microbiology Lab (2)

#### Plant Biotechnology:

BIOL 275/275L	Cell & Molecular Biology/Lab <b>OR</b>
BOT 210	Phytobiotechnology

### Electives (8-9 credits)

#### Ethnopharmacognosy:

AG 149	Plant Propagation (3)
BOT 105	Ethnobotany (3)
BOT 130	Plants in the Hawaiian Environment (4)
BOT 199/299*	Independent Study (1-4)
CHEM 161/161L	General Chemistry I/ Lab (3/1)
FSHN 185	Human Nutrition (3)

#### Plant Biotechnology:

BIOL 171/171L	General Biology I/Lab (3/1)
BOT 199/299**	Independent Study (1-4)
CHEM 161/161L	General Chemistry I/Lab (3/1)
CHEM 162/162L	General Chemistry II/Lab (3/1)

\*involves pharmaceutical/nutraceutical research

\*\*involves plant biotechnology research

## Certificate of Achievement

# Veterinary Assisting



The Certificate of Achievement in Veterinary Assisting is designed to provide students with the basic knowledge and skills required to perform effectively as an assistant in a veterinarian's office, animal shelter or animal research facility. The two-semester program includes coursework in life sciences as well as hands-on experience in live animal laboratories.

Students in the program must attain and maintain a grade of "C" or better in each of the core classes and maintain a cumulative GPA of 2.0 or higher. If a student withdraws or make below a grade of "C" in a core class, the student may not progress in the program until the course has been repeated successfully. Core classes may only be repeated once; students failing to make a grade "C" or better in a course that has been repeated may be dismissed from the program. Course repetition will be based on instructor approval and program resources. There is a \$100 professional fee each semester. Fees are subject to increase based on program cost and institutional approval.

Upon successful completion of this certificate, students will be able to:

- Effectively communicate with clients and veterinary staff
- Schedule appointments and generate invoices
- Identify common breeds of companion animals, list their nutritional requirements and husbandry needs, and describe the anatomy and functions of major body systems.
- Assist with physical exams and obtain patient histories.

- Demonstrate proper patient restraint and safety procedures
- Conduct routine physical exams and obtain patient histories
- Calculate dosages and administer medications
- Collect blood samples and perform diagnostic laboratory tests

### Required Courses (31 credits)

ANSC 140	Introduction to Veterinary Technology (3)
ANSC 142	Anatomy and Physiology of Domestic Animals (3)
ANSC 142L	Anatomy of Domestic Animals Laboratory (1)
ANSC 151	Clinical Laboratory Techniques (3)
ANSC 151L	Clinical Laboratory Techniques Laboratory (1)
ANSC 153	Companion Animal Nursing and Nutrition (3)
ANSC 153	Companion Animal Nursing and Nutr. Lab (1)
ANSC 191	Veterinary Office and Computer Skills (3)
ENG 100	Composition I (3)
HLTH 125	Survey of Medical Terminology (1)
MATH 101	Mathematics for Veterinary Assisting (3)
PSY 100	Survey of Psychology (3)
SP 151	Personal and Public Speech (3) <b>OR</b>
SP 181	Intro to Interpersonal Communications (3) <b>OR</b>
SP 231	Performance Literature (3) <b>OR</b>
SP 251	Principles of Effective Speaking (3)

See course descriptions for prerequisites.

## Certificate of Competence

# Information Computer Science: Web Support

The Certificate of Competence in Web Support is a competency based program designed for the novice or professional information worker who has little to no experience in Web support. This certificate is appropriate for upgrading the Web skills of industry members or for administrative support professionals.

Upon successful completion of this certificate, students will be able to:

- Use appropriate web development tools to support publishing an effective website that communicates a message, incorporates appropriate media, and adheres to usability and accessibility standards.
- Create and edit web-publishable media such as audio, video, and apps.
- Describe related terminology, practices, and ethics involved in web publishing.

### Required Course (3 credits)

ICS 107              Website Development (3)

### Electives (6 credits)

Select 2 from the following courses:

ICS 119              Introduction to Social Media (3)  
ICS 123              Introduction to Digital Audio/Video Production (3)  
ICS 203              Digital Image Editing (3)  
ICS 207              Building Web Applications (3)  
ICS 208              Website Design (3)

See course descriptions for prerequisites.

## Certificate of Competence

# Information Security



The Certificate of Competence in Information Security, will introduce students to the essentials of computer security. They will perform basic ethical (white hat) hacking, learn about the moral and legal issues that are involved while performing the learned techniques. Students will learn how to perform basic computer forensics such as operating system diagnostics, as well as to use a forensic tool kit to examine and validate computer activity. Students will acquire knowledge about the proper techniques for data collection, examination and preservation of forensic data.

Upon successful completion of this certificate, students will be able to:

- Create and implement security policies and procedures to aid in security administration.
- Apply techniques involved with Ethical Hacking.
- Aid in the collection, examination and preservation of data using proper computer forensics.

### Required Course (9 credits)

ICS 171              Introduction to Computer Security (3)  
ICS 281              Ethical Hacking (3)  
ICS 282              Computer Forensics (3)

See course descriptions for prerequisites.



## Certificate of Competence

# Plant Food Production and Technology

The Certificate of Competence in Plant Food Production and Technology is a 9-credit certificate that appeals to a new generation of skilled agricultural-food technicians who seek to expand their skills and knowledge in agricultural biotech and related fields. Besides employing people for research and development, the industry also caters to various other agricultural biotech-related fields including horticulture, floriculture, and tissue culture. Agricultural based biotechnologists can also sharpen students' academic skills by working with food processing or post-harvest technology. Graduates will gain knowledge in propagating, planting, and understanding the uses of plants, as well as skills in tissue culture and food sciences.

### Required Courses: Minimum 9 credits

AG 120	Plant Science (3)
AG 149	Plant Propagation (3)
AG 152	Orchid Culture (3)
BOT 105	Ethnobotany (3)
BOT 130	Plants in the Hawaiian Environment (4)
BOT 160	Identification of Tropical Plants (3)
BOT 199	Independent Study (3)
FSHN 185	Food Science and Human Nutrition (3)

## Certificate of Competence

# Sustainable Agriculture



The Certificate of Completion in Sustainable Agriculture is a 17-credit certificate designed for students who want to engage in small-scale farming in Hawai'i. Sustainable agriculture integrates long-term environmental stability with economic profitability in way that focuses on stewardship of both human and physical resources. In contrast to the ways of farming that have become typical in the last century, sustainable agriculture focuses on reducing energy and resource demands, removing harmful chemicals and by-products of farming, and using alternative processes, such as aquaponics, to create a viable farm.

Upon completion of the Certificate of Completion in Sustainable Agriculture, the student will be able to:

- Evaluate sustainable farming systems and business plans
- Determine the sustainable farming system suited for a specific location in Hawai'i
- Recommend cultural practices, solve problems and cultivate horticultural crops in a sustainable manner based on sound biological and technological principles

### Required Courses

AG 120	Plant Science (3)
AG 170	Introduction to Aquaponics (4)
AG 171	Farm Renewable Energy System (3)
AG 192	Special Topics in Agriculture (1)
BUS 122B	Introduction to Entrepreneurship - Sustainable Agriculture (3)
IS 201	The Ahupua'a (3)

# Marine Option Program

(through University of Hawai'i at Mānoa)

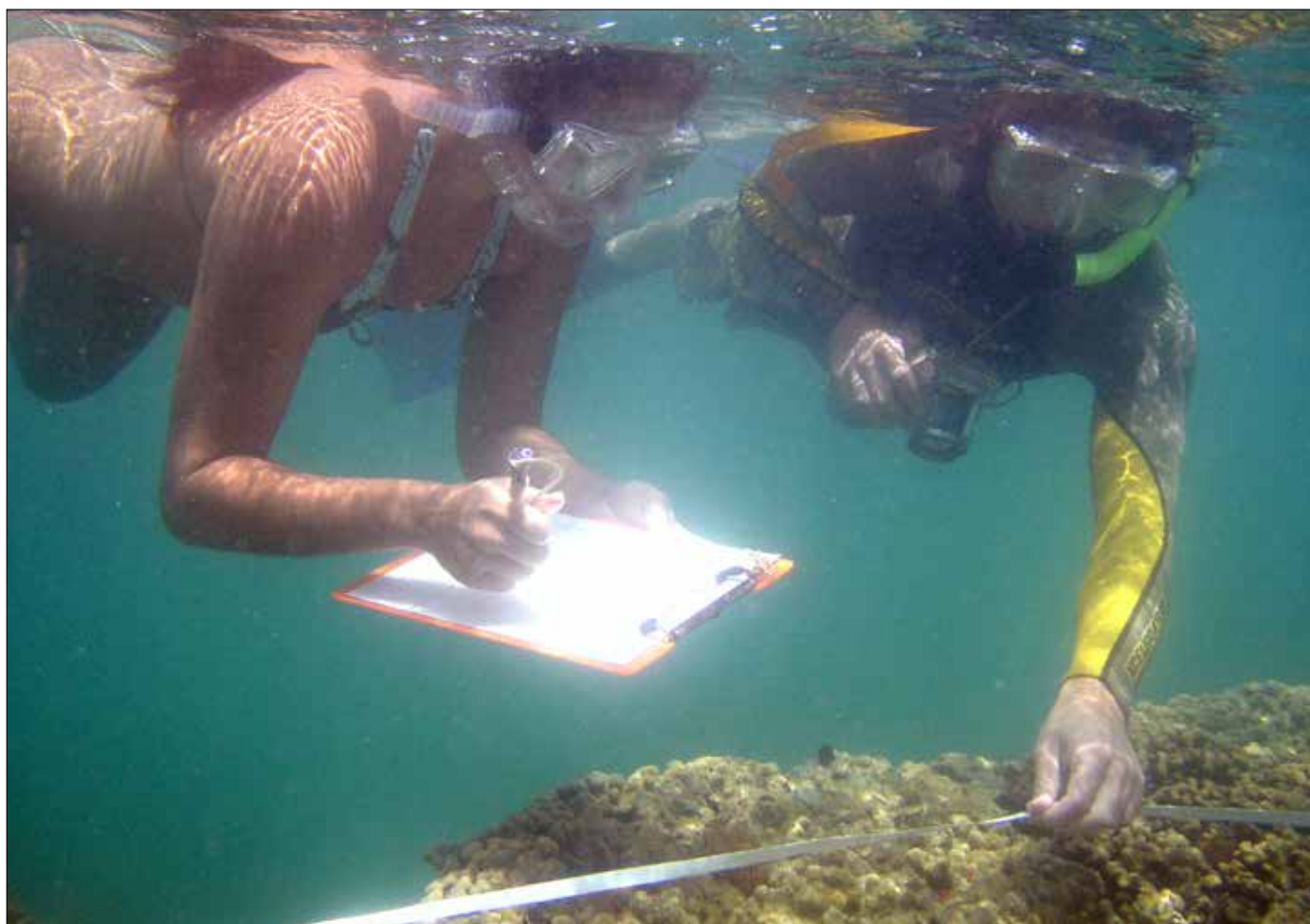
## Graduation Requirements

The Marine Option Program (MOP) is designed to assist undergraduate and other students interested in marine and freshwater systems. Through MOP, you can obtain a marine orientation to your own major while earning an official University of Hawai'i Certificate, which is registered on your transcript. MOP emphasizes experiential, cross-disciplinary education and provides opportunities to apply your traditional coursework to the real world while you obtain practical marine skills through a hands-on internship, research project, or employment.

A certificate issued by the University of Hawai'i at Mānoa is awarded to students who successfully complete at least 10

credit hours of marine-related courses (1-credit OCN 101, 3-credits OCN 201 or ZOOL 200, 6 credits marine electives) and the MOP skill project. The unique MOP skill project (2 or more credits, e.g., Academic Independent Study 199) allows students to design and conduct an independent aquatic project related to their academic field of interest or educational goals. At WCC, MOP is managed by the Pacific Center for Environmental Studies (PaCES).

For information about the program, contact the Windward MOP Coordinator at 808-235-9118 or visit the MOP Office in Hale 'Imiloa 118, or email [wccmop@hawaii.edu](mailto:wccmop@hawaii.edu), or visit the website: [wcc.hawaii.edu/MOP/](http://wcc.hawaii.edu/MOP/).



# Course Descriptions



Hale 'Ākoakoa is home to Ka Piko Student Success Services, student lounge, bookstore, academic counseling, Uala Leaf Café and meeting rooms.

The following pages list courses of instruction. Courses may not be offered every semester; students should refer to the Schedule of Classes prior to registration. Changes, additions, or deletions may be necessary, and when possible, advance notice will be given.

## Credit

The number of credits of each course is indicated by a number in parentheses following the title of each course.

## Windward Community College Articulation Codes

FW	Written Communication
FS	Symbolic Reasoning
FGA	Global & Multicultural Perspectives, Group A
FGB	Global & Multicultural Perspectives, Group B
FGC	Global & Multicultural Perspectives, Group C
OC	Oral Communications
DA	Arts
DH	Humanities
DL	Literatures
DS	Social Sciences
DB	Biological Science
DP	Physical Science
DY	Laboratory Science

## Course Numbering

Each course is designated by an abbreviation which stands for the subject area of the course, followed by a number.

- Courses numbered from 1-99 are generally not applicable for credit toward a baccalaureate degree but some are applicable to certificates.
- Courses numbered from 100-199 are initial or introductory courses.
- Courses numbered from 200-299 are generally second-year courses in a sequence or development within a field of study.
- Courses ending in -92, -94, or -96 are special topics courses dealing with timely issues or unique subject matter not included in the main curriculum. These courses may be infrequently offered.
- Courses ending in -97 or -98 are experimental courses proposed for inclusion in the main curriculum and are offered for only one year on this basis.
- Courses ending in -99 are independent study courses such as directed reading, research or field work experience.
- The suffix "L," when used, designates a laboratory course which is a companion course (whether required or not) to a given lecture course.
- The suffix "V," when used, designates variable credit. The credit to be earned is arranged with the instructor by each student at the time of registration.
- The suffix "WI," when used in the class schedule, designates a Writing Intensive course.



### Accounting

#### **ACC 201 Introduction to Financial Accounting (3)**

Introduction to accounting principles and practices used to record and communicate financial information. Analyze methods for valuating assets, liabilities, and equity of an organization. (3 hours lecture)

*Prerequisite: Placement into ENG 100 or equivalent*

The student learning outcomes are:

- Describe and understand the nature, environment and role of accounting as it relates to individuals, business organizations, and the business community.
- Analyze, record and report the business activities and transactions of a service and/or merchandising type organization using generally accepted accounting principles (GAAP).
- Understand and describe what internal controls are, including its basic components and limitation, and apply internal control activities in the control of cash and merchandising transactions.
- Apply GAAP in accounting for financial assets and liabilities including, but not limited to, short-term financial assets, inventories, long-term assets, and current liabilities.

#### **ACC 202 Introduction to Managerial Accounting (3)**

An introduction to managerial accounting methods for evaluating performance including cost accounting, budgeting, break-even analysis, ratio analysis, standard cost systems, and reporting for internal decision making. (3 hours lecture)

*Prerequisite: ACC 201 with "C" or better.*

The student learning outcomes are:

- Analyze, record, and report equity and long-term liability transactions related to partnerships and corporations from both an issuer and investor perspective using GAAP.
- Prepare and analyze the Statement of Cash Flows.
- Analyze financial statements using horizontal analysis, vertical analysis, and financial statement ratio techniques.
- Describe the concepts of managerial accounting and explain how they are applied to various business models.
- Analyze, record, and report the activities of a manufacturing company using process cost, job order cost, and standard cost accounting systems.
- Prepare information and reports that may be used by management to plan, direct, motivate, and control a business using Cost-Volume-Profit analysis, incremental analysis, and operational and capital budgeting techniques.

### Aeronautics

#### **AERO 150 Introduction to Rocketry (3)**

This is a general introductory course to rocket science. Principles of propulsion, aerodynamics, and safety protocols for design and ground operations are stressed. (3 hours lecture)

*Recommended Preparation: Credit in Math 25, 26, 29, 82, or higher.*

DP

The student learning outcomes are:

- Demonstrate a solid understanding of propulsive methods, especially as pertains to space.

- Solve applicable problems of spacecraft kinematics, dynamics, and energy considerations.
- Apply the laws of planetary motion and celestial mechanics.
- Outline the historical development of manned and unmanned space flight.
- Identify and describe the appropriate instruments, detectors and space probes used by astronomers and space scientists to explore the solar system, especially in the area of remote sensing.
- Discuss the future of space colonization and exploitation.

### Agriculture

#### **AG 20 Plant Science (3)**

The study of plant morphology, anatomy, physiology, classification, growth, growth regulators, and propagation. (2 hours lecture, 2 hours laboratory)

The student learning outcomes are:

- Describe and explain general plant structure and function in relation to plant growth and development.
- Demonstrate knowledge of horticultural principles in the cultivation of plants.
- Examine commercial agricultural enterprises for to become familiar with employment opportunities and the impact of horticulture on our lives.

#### **AG 36 Pesticide Safety (1)**

Pesticide application, formulation, toxicity, transportation, storage, safety equipment, disposal, and rules and regulations governing pesticide use. (1 hour lecture)

The student learning outcomes are:

- Select proper pesticide application equipment.
- Identify pesticides according to what they control.
- State the general rules and regulations governing the use of pesticides.

#### **AG 40 Turfgrass Equipment (1)**

Teaches the operation and maintenance of equipment used in turfgrass operations. (2 hours lecture/lab)

*Prerequisite: Credit for or registration in AG 82 or AG 182 or consent of instructor.*

The student learning outcomes are:

- Select the proper tool for the job.
- Demonstrate the effective use of the tool.
- List the advantages and disadvantages of various engine types.

#### **AG 44 Landscape Equipment (1)**

Teaches the operation and maintenance of equipment used in landscape operations. (2 hours lecture/lab)

*Prerequisite: Credit for or registration in AG 80 or AG 180 or consent of instructor.*

The student learning outcomes are:

- Select the proper tool for a job.
- Demonstrate the safe and effective use of the tool.



## Course Descriptions

### AG 49 Plant Propagation (3)

Introduction to the principles and practices of propagation of fruit, vegetable and ornamental crops by seed, cuttings, grafting, budding, layering and division. Lecture/laboratory/field trip course. (2 hours lecture, 3 hours laboratory)

The student learning outcomes are:

- Describe basic plant growth.
- Relate the principles of plant growth to the solution of everyday problems in plant production.
- Understand the influence of environmental factors on plant growth.
- Propagate plants by various methods.

### AG 93V Cooperative Education (1-4)

This course provides college credit for compensated work experience to reinforce knowledge and skills learned in coursework for the Agricultural Technology Program. Related instruction may be provided as appropriate. Seventy-five hours of work per semester is required for each credit earned. Repeatable to a total of 4 credits that may be applied to the AA degree, 1 credit applicable toward Certificate of Completion.

*Prerequisite: Open to Agriculture majors only. Instructor's permission is required.*

The student learning outcomes are:

- Demonstrate the utilization of course work in the field.

### AG 100 Agriculture Orientation: Careers (1)

Familiarizes students with different agricultural operations in Hawai'i through lectures, guest speakers and fieldtrips. (1 hour lecture)

The student learning outcomes are:

- Describe various careers in agriculture.
- Identify positive and negative aspects of various agriculture careers.

### AG 120 Plant Science (3)

The study of plant science, morphology, anatomy, physiology classification, growth, growth regulators, and propagation. Students are required to write a 10 to 15 page research report. (2 hours lecture, 2 hours lecture/lab)

DB

The student learning outcomes are:

- Describe and explain general plant structure and function in relation to plant growth and development.
- Demonstrate knowledge of horticultural principles in the cultivation of plants.
- Examine commercial agricultural enterprises for to become familiar with employment opportunities and the impact of horticulture on our lives.
- Research and report on a horticultural plant.

### AG 132 Integrated Pest Management (3)

Strategies of integrated pest management; biological and cultural pest controls, weed control, disease control, insect control. (3 hours lecture)

The student learning outcomes are:

- Identify major insects, weeds, diseases that are detrimental to

the horticulture industry in Hawai'i.

- Define Integrated Plant Management and develop an IPM plan.
- Understand and use economic thresholds.
- Identify common predators and parasites.
- Identify management strategies to reduce pest pressures on plants.

### AG 149 Plant Propagation (3)

Introduction to the principles and practices of propagation of fruit, vegetable, and ornamental crops by seed, cuttings, grafting, budding, layering and division. (3 hours lecture)

*Recommended Preparation: 12th Grade reading level.*

The student learning outcomes are:

- Describe basic plant growth.
- Relate the principles of plant growth to the solution of everyday problems in plant production.
- Understand the influence of environmental factors on plant growth.
- Propagate plants by various methods.
- Determine the best form of propagation for a selected plant.

### AG 152 Orchid Culture (3)

An extensive study of orchid identification, breeding, growth, and culture. Students are required to write a 10 to 15 page research report. (3 hours lecture)

DB

The student learning outcomes are:

- Identify orchid species, hybrids and trace their pedigrees.
- Provide cultural requirements for each genus, including temperature, light intensity, humidity, watering, fertilizing, media composition, and pest or disease control and repotting.
- Perform traditional and in vitro propagation techniques.
- Perform orchid breeding and discuss its economic importance.
- Conduct research and submit research paper.

### AG 155 Subtropical Arboriculture (3)

The introduction of arboriculture and the care of community trees. This is a balanced course of practical skills and scientific tree care. (3 hours lecture)

*Prerequisite: Credit for AG 20 or AG 120 or equivalent or consent of instructor.*

The student learning outcomes are:

- Identify and describe the characteristics of tree species on the Hawai'i ISA list.
- Describe tree anatomy and physiology.
- Recommend techniques of tree preservation during construction.
- Use ISA standards (ANSI A300) when pruning trees.

### AG 156 Tree Risk Assessment (3)

This is an introductory course in the evaluation of hazard trees. It is intended for those students interested in pursuing careers in arboriculture. (3 hours lecture)

*Recommended Preparation: AG 155.*

The student learning outcomes are:

- Perform tree site inspections.
- Perform tree inspections.
- Document tree risk hazards.

### **AG 158 Tree Pruning and Felling Equipment (1)**

An introduction to the arboriculture uses of pruning and felling equipment. Safety and efficient use are emphasized. (2 hours lecture/lab)

The student learning outcomes are:

- Operate a chain saw using ISA ANSI Z133.1 standards.
- Select the correct tool for the task.

### **AG 159 Tree Climbing (1)**

An introduction to tree climbing using ropes and tree maintenance equipment in and around trees. (3 hours laboratory)

*Prerequisite: Credit for AG 155 or consent of instructor. Physical and mental capacity to climb trees using ropes.*

The student learning outcomes are:

- Ascend a tree with ropes to a minimum of 15 feet.
- Use ISA standards to prune a tree while attached to a rope.

### **AG 170 Introduction to Aquaponics (4)**

The course covers aquaculture, hydroponics, aquaponics, sustainable aquatic feed production, renewable local seeding technologies and micronutrient supplementation, fish and plant physiology, renewable energy systems, water catchment and conservation techniques, and best aquaponic food safety practices. The basic physical and biological principles governing sustainable farm and agribusiness operations are emphasized. (3 hours lecture, 3 hours laboratory)

*Recommended Preparation: AG 120 and IS 201.*

The student learning outcomes are:

- Design and construct a basic aquaponic system that uses all three grow-out technologies (nutrient film technique, ebb and flow, and floating raft) either alone or in combination.
- Apply best aquaculture practices for culturing fishes in an aquaponic setting.
- Identify the water quality parameters and manage them in order to maximize fish, plant and microbial outputs in an aquaponic setting.
- Use best agricultural practices for plant crop production in an aquaponic setting. Prepare seedlings for planting, harvest produce, stagger production of both plant and fish, and apply food safety procedures.

### **AG 171 Farm Renewable Energy Systems (3)**

This course explores the various renewable energy systems potentially employable on small farms. Topics such as solar, solar thermal, wind, micro-hydraulic, biomass, and hybrid technologies are covered in the course. (3 hours lecture)

The student learning outcomes are:

- Evaluate photovoltaic systems applicable to small farms
- Evaluate solar thermal applications for small farms
- Evaluate biomass systems applicable to small farms
- Evaluate wind systems for small farms
- Evaluate micro-hydraulic systems for small farms
- Evaluate hybrid system applications for small farms

### **AG 180 Landscape Maintenance (3)**

Application of horticulture practices to the maintenance of plants in the landscape. Emphasis on trees, shrubs, and annuals. Students are required to write a 10 to 15 page research report. (2 hours lecture, 2 hours laboratory)

*Prerequisite: Credit for AG 20 or AG 120 or consent of instructor.*

The student learning outcomes are:

- Sketch a landscape plan.
- Install and maintain plants in a landscape.
- Identify common plants found in a landscape.
- Research and report on a landscape topic.

### **AG 182 Turfgrass Management (3)**

Identification, planting, and maintenance of turfgrass for home, park, and golf course areas. Discusses irrigation, fertilization, cultivars, and pest control. Students are required to write a 10 to 15 page research report. (2 hours lecture, 2 hours laboratory)

*Prerequisite: Credit for AG 20 or AG 120 or consent of instructor.*

The student learning outcomes are:

- Identify turf grasses found in Hawai'i.
- Select the proper turf for a site.
- Describe and perform maintenance practices in a golf course situation.
- Research and report on a turf grass topic.

### **AG 192V Special Topics in Agriculture (1-4)**

Topics related to diversified agriculture chosen by the Instructor. Course content may vary. May be repeated up to 5 credits with different topics. (1 to 4 hours lecture)

The student learning outcomes are:

- Identify the important concepts and facts presented for the topic(s) under examination.
- Make inferences and draw conclusions from the topic(s) under discussion.
- Develop skills appropriate to the topic(s) under discussion.
- Gain a higher appreciation for the human endeavor of agriculture.
- Gain a higher awareness of the potential career paths that this special topic course in agriculture covers.

### **AG 235 Irrigation Principles and Design (3)**

Fundamentals of irrigation principles, plant, soil, water relationships, soil moisture sensing devices, delivery systems, set up of drip, sprinkler, and surface irrigation systems. Use of chemigation. (3 hours lecture)

*Recommended Preparation: Credit in Math 22, 24, 25, 26, 28, 29, 75X or higher.*

The student learning outcomes are:

- Determine water requirements for plant growth.
- Describe soil water concepts.
- Select the appropriate irrigation method and components for the situation.
- Design a basic drip and sprinkler irrigation system.
- Troubleshoot irrigation problems.

## Course Descriptions

### Animal Sciences

#### **ANSC 140 Introduction to Veterinary Technology (3)**

This course introduces students to the field of veterinary technology and describes the responsibilities and expectations for students enrolled in the program. Topics include: roles of the veterinary team members, legal and ethical aspects of veterinary practice, breeds of companion animals, safety, sanitation and waste-disposal protocols, and career fields in veterinary medicine. (3 hours lecture)

*Prerequisite: Registration in or a grade "C" or better in ANSC 142 and ANSC 142L. Credit for or placement in ENG 100 and MATH 101. Confirmed attendance to WCC veterinary technology information session.*

The student learning outcomes are:

- Describe the roles and legal boundaries of veterinary health care team members and discuss the legality of the veterinary-client-patient relationship.
- Identify and describe common workplace hazards, including zoonotic diseases.
- Establish and maintain appropriate sanitation, nosocomial, and waste-disposal protocols.
- Identify common breeds of companion animals.

#### **ANSC 142 Anatomy and Physiology of Domestic Animals (3)**

Introduction to the anatomy and physiology of domestic animals. Compares the anatomy and function of major body systems for the cat, dog and horse, with lesser emphasis on birds, reptiles and amphibians. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields. (3 hours lecture)

*Prerequisite: Registration in or a grade "C" or better in ANSC 140 and ANSC 142L. Credit for or placement in ENG 100 and MATH 101. Confirmed attendance to WCC veterinary technology information session.*

DB

The student learning outcomes are:

- Discuss the chemical building blocks of major biological molecules.
- Describe the link between cells, tissues, organs, and organ systems.
- Contrast the structure and function of major body systems (e.g., skeletal, circulatory, respiratory, and reproductive) among companion animals and selected livestock species.
- Explain how disease and disorders disrupt the homeostasis of each of the above body systems and discuss how common veterinary medical treatments are used to restore homeostasis.

#### **ANSC 142L Anatomy of Domestic Animals Laboratory (1)**

Laboratory to accompany ANSC 142. This course is designed to acquaint the student with the body systems of common domestic species (e.g., cats, dogs, horses and birds) through dissections, examinations of models, laboratory exercises, and other hands-on activities. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields. (3 hours laboratory)

*Prerequisite: Registration in or a grade "C" or better in ANSC 140 and ANSC 142. Credit for or placement in ENG 100 and MATH 101. Confirmed attendance to WCC veterinary technology information session.*

DY

The student learning outcomes are:

- Identify and describe the anatomy of the major body systems for cats, dogs and horses using prepared slides, skeletons, models and dissections.
- Use standard anatomical terms to describe body directions, regions and sectioning planes.
- Identify major anatomical landmarks used to assess patient health during physical exams.
- Demonstrate proficiency at the use of the microscope as a clinical instrument.

#### **ANSC 151 Clinical Laboratory Techniques (3)**

Provides students with the background knowledge needed to perform and interpret laboratory techniques commonly used in veterinary practice. Topics include: Homeostatic relationships, cytology, histology, parasitology and clinical physiology of major body systems. Includes a discussion of common disorders affecting major body systems and the techniques used for diagnosis. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields. (3 hours lecture)

*Prerequisite: A grade of "C" or better in ANSC 142 and 142L.*

*Corequisite: Registration in ANSC 151L.*

DB

The student learning outcomes are:

- Describe the procedures for safely collecting specimens from domestic animals.
- Discuss the clinical tests performed in hematology, urinalysis, clinical chemistries, and cytology.
- Compare the technologies used by automated hematology and blood chemistry machines and discuss their impacts on the accuracy and reliability of test results.
- Recognize accurate vs. erroneous results in order to provide maximum diagnostic benefit.

#### **ANSC 151L Clinical Laboratory Techniques Lab (1)**

Laboratory to accompany ANSC 151. Provides students with the knowledge and skills necessary to perform common veterinary lab tests including urinalysis, hematology, blood chemistry, cytology and parasitology. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields. (3 hours laboratory)

*Prerequisite: A grade of "C" or better in ANSC 142 and ANSC 142L.*

DY

The student learning outcomes are:

- Properly package, handle and store specimens for laboratory analysis.
- Demonstrate proficiency in the use of veterinary lab equipment (e.g. microscopes, blood chemistry analyzers, centrifuges, and refractometers).



- Determine proper maintenance and quality control procedures necessary to ensure accurate results.
- Properly carry out analysis of laboratory specimens, including urinalysis, CBC, blood chemistry and common cytological and parasitological procedures.
- Use critical thinking to analyze and interpret clinical data to determine if a need exists for additional laboratory tests that will provide useful diagnostic information.

### **ANSC 152 Companion Animal Diseases and Nutrition (3)**

An introduction to the common diseases and medical care of companion animals. Topics include identification, clinical signs and symptoms, and treatment of diseases affecting companion animals. This course is intended for students entering veterinary technology or other animal-related fields.

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

The student learning outcomes are:

- Describe the common diseases of companion animals and identify the life stage at which the disease typically occurs.
- List the clinical signs and tests used in the diagnosis of common companion animal diseases.
- Explain the medical treatments for common companion animal diseases.
- Communicate the information that a client or owner would need in the event that a pet was diagnosed with a specific disease.

### **ANSC 153 Companion Animal Nursing and Nutrition (3)**

An introduction to the husbandry and medical care of companion animals. Topics include: safe animal handling techniques, medical records and obtaining patient information, nursing tasks such as bandaging, administering medications, and sample collection. This class also discusses nutritional requirements of dogs and cats in all life stages and toxic substances. This course is intended for students entering veterinary technology, veterinary assisting, or other animal-related fields. (3 hours lecture) (3 hours lecture)

*Prerequisite: Grade "C" or better in ANSC 142 and in ANSC 142L.*

The student learning outcomes are:

- Discuss energy and nutrient requirements for various life stages of companion animals and list substances that, when ingested, result in toxicity
- Describe how animal anatomy and physiology are integrated with animal behavior; compare normal, abnormal, and aggressive animal behavior; and discuss low-stress animal handling techniques
- Outline nursing procedures such as basic patient care and grooming, bandaging, sample collection, and administering medications and treatments

### **ANSC 153L Companion Animal Nursing Lab (1)**

This course provides students with hands-on training in basic companion-animal exam and nursing skills. Topics include: animal restraint methods, medical charting and patient exam procedures, specimen collection, administration of medications, grooming and

husbandry. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields. (3 hours laboratory)

*Prerequisite: Grade "C" or better in ANSC 142 and ANSC 142L.*

The student learning outcomes are:

- Safely and effectively restrain companion animals
- Gather subjective and objective patient information efficiently
- Perform venipuncture and collect diagnostic samples of skin, blood, urine, and feces
- Perform basic grooming such as bathing, nail trims, and ear cleaning
- Apply emergency splints and bandages & administer medications by various routes (IV, IM, SQ, & PO)

### **ANSC 190 Veterinary Clinical Practices and Internship I (3)**

Practical animal experience at veterinary clinics, zoos, research labs or other animal facilities. Topics covered may include restraint procedures, venipuncture, vital signs assessment, radiological techniques, veterinary business and front-office procedures, routine nursing care and animal husbandry. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields.

Students participating in ANSC 190 are required to show proof of current health insurance and obtain a professional liability policy through their internship supervisor. (9 hours internship)

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

The student learning outcomes are:

- Perform required clinical competencies in assigned veterinary location(s).
- Demonstrate professionalism in attendance, attitude, and behavior.
- Discuss multiple aspects of veterinary medicine through case studies, guest lecturers, or other assignments.

### **ANSC 191 Veterinary Office and Computer Skills (3)**

Veterinary Office and Computer Skills covers the support skills needed in a veterinary office. Because veterinary office skills are critical in the success or failure of a practice, this course will emphasize the following: client communication, public relations, ethical and legal procedures, bookkeeping functions, scheduling, records management, and telephone skills. Students will be introduced to one or more industry-standard veterinary software programs as well as word processing and spreadsheet software. (3 hours lecture)

*Prerequisite: Registration in or a grade "C" or better in ANSC 142 and ANSC 142L. Credit for or placement in ENG 100 and MATH 101.*

*Confirmed attendance to WCC veterinary technology information session.*

The student learning outcomes are:

- Contribute to a welcoming office environment that promotes accurate interactions with patients and clients.
- Work as a team member to deliver service in an ethical, compassionate manner, following the Veterinary Technician Code of Ethics developed by the National Association of Veterinary Technicians Association Ethics Committee.
- Perform introductory office administrative duties to insure

## Course Descriptions

up-to-date filing and retrieval of documents, data entry, billing and receipts, and inventory.

- Demonstrate knowledge of an industry-standard veterinary software program.
- Demonstrate introductory skills for a word processing and spreadsheet program.

### **ANSC 252 Diagnostic Imaging for Veterinary Technicians (3)**

This course covers the nature and use of x-ray technology in veterinary technology. Students are also given an overview of alternative imaging techniques (ultrasound, CT scans, and digital radiography), as well as an introduction to the radiography of large animals and exotics. (3 hours lecture)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

*Corequisite:* Concurrent enrollment in ANSC 252L.

The student learning outcomes are:

- Describe the uses and functioning of various types of medical imaging equipment.
- Implement and observe recommended radiation safety measures.
- Evaluate radiographic images for proper radiographic technique and patient positioning.
- Explain the clinical uses of alternative imaging technologies.

### **ANSC 252L Diagnostic Imaging for Veterinary Technicians Lab (1)**

This lab trains students to safely and effectively use x-ray technology to obtain diagnostic radiographs of the skeletal- and soft anatomy of companion animals. (3 hours laboratory)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

*Corequisite:* Concurrent enrollment in ANSC 252.

The student learning outcomes are:

- Utilize radiographic equipment to expose and develop radiographic films in order to create diagnostic radiographic images.
- Properly label and file radiographic films and complete radiographic logs and reports.
- Utilize radiographic contrast agents to produce diagnostic images of urinary and GI organs.
- Perform radiographic techniques utilized in screening for canine hip dysplasia.
- Demonstrate proper maintenance and troubleshooting of radiographic equipment.
- Position companion animals safely and humanely for radiographic studies.

### **ANSC 253 Applied Pharmacology for Veterinary Technicians (3)**

This course is designed to give students a practical knowledge of drugs used in veterinary medicine. Topics include drug classification, methods of action, calculations, administration, effects and side effects. Also includes a discussion of client education, drug safety, and federal regulations governing the purchase and storage of controlled drugs. Upon successful completion, students will be

able to properly calculate, dispense, and administer medications, recognize adverse reactions and maintain pharmaceutical inventory and administrative records. This course is intended for students entering veterinary technology, veterinary assisting, or other animal-related fields. (3 hours lecture)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

DB

The student learning outcomes are:

- Recognize groups of veterinary drugs, their mechanisms & actions, and clinically relevant side effects.
- Correctly interpret a veterinarian's pharmacy orders.
- Accurately calculate, dispense, and administer the correct form and dose of a medication.
- Describe the safe and effective manner in which vaccines must be administered.
- Maintain a controlled substances logbook in accordance with local and federal laws.
- Explain federal and state regulatory guidelines for drug purchase, storage, administration, withdrawal, disposal and inventory control.
- Accurately communicate drug information and dosing instructions to clients in order to maximize safety, compliance with prescribed therapy and successful treatment of the patient.

### **ANSC 258 Clinical Laboratory Techniques II (3)**

A continuation of ANSC 151 & 151L, this course provides students with additional instruction and hands-on experience with laboratory tests commonly used in veterinary practice. Topics include: 1) identification of internal parasites, 2) performance and evaluation of microbiologic and serologic tests, 3) collection & evaluation of cytological samples, 4) veterinary necropsy procedures. Included in this course is a review of the anatomy and physiology of major body systems and an overview of common diseases seen in veterinary practice. This course is intended for students entering veterinary assisting, veterinary technology or other animal-related fields. (3 hours lecture)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

*Corequisite:* ANSC 258L

The student learning outcomes are:

- Distinguish different types of bacteria and the methods used to identify common bacteria in veterinary medicine.
- Identify and describe the life cycle of select internal and external parasites of companion animals, livestock, & exotic species.
- Compare the different aspects of the immune system and discuss immunologic testing commonly performed in veterinary medicine.

### **ANSC 258L Clinical Laboratory Techniques II Lab**

A continuation of ANSC 151 and 151L, this course provides students with additional instruction and hands-on experience with laboratory tests commonly used in veterinary practice. Topics include: 1) identification of internal parasites 2) performance and evaluation of microbiologic and serologic tests, 3) collection & evaluation of cytological samples 4) veterinary necropsy procedures. Included in this course is a review of the anatomy and physiology of major body

systems and an overview of common diseases seen in veterinary practice. This course is intended for students entering veterinary assisting, veterinary technology or other animal-related fields. (3 hours laboratory)

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

*Corequisite: ANSC 258*

The student learning outcomes are:

- Properly package, handle and store specimens for laboratory analysis.
- Perform parasitological tests to identify select internal and external parasites of veterinary medicine.
- Collect, culture, and identify bacteria from animal tissues and perform sensitivity testing.
- Perform a postmortem examination of a non-preserved animal.

### **ANSC 261 Anesthesiology and Dentistry for Veterinary Technicians (3)**

This course will focus on dental anatomy, common dental diseases, and basic dental procedures. Topics will include proper charting, routine periodontal care, anesthesia, patient monitoring, analgesia, post-op concerns, and home care for clients. Dental equipment and instruments will be reviewed in preparation for the concurrent lab (ANSC 261L). (3 hours lecture)

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

*Corequisite: Co-registration in ANSC 261L.*

DB

The student learning outcomes are:

- Explain all aspects of anesthetic monitoring.
- Understand the proper operation of anesthetic delivery equipment and monitoring instruments.
- Understand and integrate all aspects of patient management for common dental procedures in companion animal species.
- Identify and provide appropriate instruments, supplies and environment to maintain asepsis during dental procedures.
- Understand the principles of routine dental care and be able to make recommendations to pet owners.
- Recognize the levels of periodontal disease and how it affects a patient's overall health.
- Identify normal dental anatomy of common veterinary species.

### **ANSC 261L Anesthesiology and Veterinary Dentistry for Veterinary Technicians Lab (2)**

This course will focus on the clinical skills necessary for safe and effective anesthesia and dental prophylaxis of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, endotracheal intubation, patient preparation and monitoring, and dental prophylaxis under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care. (6 hours laboratory)

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

*Corequisite: Co-registration in ANSC 261.*

DY

The student learning outcomes are:

- Safely and effectively manage patients during all phases of anesthetic procedures.
- Safely and effectively select, operate and maintain anesthetic delivery equipment and monitoring instruments.
- Safely and effectively operate and maintain dental equipment.
- Understand and integrate all aspects of patient management for common dental procedures in companion animal species.
- Identify and provide appropriate instruments, supplies and environment to maintain asepsis during dental procedures.

### **ANSC 262 Clinical Procedures for Large Animals (3)**

The student will learn techniques in large animal restraint, husbandry and clinical procedures and be provided some introduction to relevant large animal diseases. Biosecurity and public health will be discussed as they apply to large animal health care and husbandry. The course is appropriate for those entering animal husbandry, veterinary assisting, veterinary technology or animal science fields. (3 hours lecture)

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

*Corequisite: ANSC 262L*

DB

The student learning outcomes are:

- Describe common zoonotic diseases of large animals as they apply to animal health and public safety.
- Discuss biosecurity and isolation procedures necessary in livestock operations.
- Describe the signs and treatment for common diseases of large animals.
- Explain anesthetic, surgical, dental, and recovery procedures for large animals.

### **ANSC 262L Clinical Procedures for Large Animals Lab (1)**

The student will learn techniques in large animal restraint, husbandry and clinical procedures and be provided some introduction to relevant large animal diseases. Biosecurity and public health will be discussed as they apply to large animal health care and husbandry. The course is appropriate for those entering animal husbandry, veterinary assisting, veterinary technology or animal science fields. (3 hours laboratory)

*Prerequisite: Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.*

*Corequisite: ANSC 262*

DY

The student learning outcomes are:

- Safely and successfully restrain various species of livestock for medical examination and procedures.
- Medicate, bandage, groom, and feed large animals.
- Successfully perform diagnostic sampling and imaging tasks on large animals.



## Course Descriptions

### **ANSC 263 Exotic and Laboratory Animal Procedures (3)**

Introduction to the husbandry, care and use of exotics and laboratory animals. Includes discussion in common diseases, biosecurity, and public health as they apply to a wide variety of species, including those found in Hawaii and beyond. This course is intended for students entering lab animal medicine, veterinary technology, veterinary assisting or other animal-related fields. (3 hours lecture)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

The student learning outcomes are:

- Comply with national and institutional regulations regarding the housing, care, and use of laboratory animals.
- Recognize of exotic and lab animal species and describe the signs and treatments for common diseases of lab animals.
- Describe common zoonotic diseases of exotics and lab animals as they apply to animal health and public safety.

### **ANSC 263L Exotic and Laboratory Animal Procedures Lab (1)**

Laboratory to accompany ANSC 263. Provides student training in restraint and handling, health assessment, and nursing skills of exotic and laboratory animal species. This course is intended for students entering lab animal medicine, veterinary technology, veterinary assisting or other animal-related fields. (3 hours laboratory)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

The student learning outcomes are:

- Safely and humanely restrain common exotic and lab animals for procedures.
- Administer drugs and medications using appropriate sites and routes (IV, IM, SQ and Oral Dosing) to exotic and lab animal species.
- Humanely collect blood samples from exotics and lab animal species.
- Identify and describe the anatomy of the major body systems for exotic mammalian and avian species using skeletons and models.
- Explain anesthetic and recovery procedures in exotics and lab animal species.

### **ANSC 266 Veterinary Clinical Practices & Internship II (3)**

A continuation of ANSC 190, this course provides veterinary technology students with additional practical experience in a clinical setting. Topics covered include: advanced sample collection & handling techniques, dentistry, administration of medications, anesthesiology & surgical assisting, and advanced nursing techniques. Emphasis is placed on integrating classroom learning with practical work experience. (9 hours internship)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

The student learning outcomes are:

- Perform required clinical competencies in assigned veterinary location(s).
- Demonstrate professionalism in attendance, attitude, and behavior.

- Discuss multiple aspects of veterinary medicine through case studies, guest lecturers, or other assignments.

### **ANSC 271 Anesthesiology and Surgical Nursing for Veterinary Technicians (3)**

This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care. (3 hours lecture)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

*Corequisite:* Co-registration in ANSC 271L

DB

The student learning outcomes are:

- Understand the proper operation of anesthetic delivery equipment and monitoring instruments.
- Explain all aspects of anesthetic monitoring.
- Understand and integrate all aspects of patient management for common surgical procedures in companion animal species.
- Identify and provide appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.
- Demonstrate understanding of routine surgical procedures including surgeries in these categories: ovariohysterectomy, cesarean section, orchiectomy, laparotomies, and orthopedic procedures.

### **ANSC 271L Anesthesiology and Surgical Nursing for Veterinary Technicians Lab (2)**

This course will focus on the clinical skills necessary for safe and effective anesthesia and surgery of companion animal patients (dogs and cats). Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and patient monitoring under general anesthesia will be stressed. The use and side effects of commonly used sedatives, analgesics and anesthetics will be covered. Postoperative procedures include patient monitoring and charting as well as client education for postoperative care. (6 hours laboratory)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

*Corequisite:* Co-registration in ANSC 271.

DY

The student learning outcomes are:

- Safely and effectively manage patients during all phases of anesthetic procedures.
- Safely and effectively select, operate and maintain anesthetic delivery equipment and monitoring instruments.
- Understand and integrate all aspects of patient management for common surgical procedures in companion animal species.
- Identify and provide appropriate instruments, supplies and environment to maintain asepsis during surgical procedures.

### **ANSC 290 Veterinary Technician Exam Review (1)**

This course prepares students for the Veterinary Technician National Exam (VTNE). Topics include test-taking strategies, formation of a study plan, and a review of topics from previous veterinary technology courses. Students enrolled in this course will develop essential test-taking skills by completing practice exams covering all major topics of the WCC veterinary technology curriculum. (1 hour lecture)

*Prerequisite:* Admission in the Veterinary Technology Program and a grade of "C" or better in all completed ANSC courses.

The student learning outcomes are:

- Develop an appropriate study plan and essential test-taking skills to prepare for the VTNE.
- Identify areas of competence as well as topics which require further study.

## **Anthropology**

### **ANTH 151 Emerging Humanity (3)**

This course is an introduction to human biological evolution and the archaeology of culture in the world prior to AD 1500. (3 hours lecture) FGA

The student learning outcomes are:

- Describe the human phylogenetic past, applying the theory of evolution to explain major morphological transitions of the lineage.
- Discuss the relationship(s) among human biology, culture, and environment, both prehistoric and historic.
- Demonstrate an appreciation for how anthropologists gather and use evidence about the past to describe human biological and cultural variation.

### **ANTH 152 Culture and Humanity (3)**

Introduction to cultural anthropology. This course explores how humans create, understand, order and modify their natural, social, supernatural and physical environments, and make meaning and order. (3 hour lecture)

FGB

The student learning outcomes are:

- Explain how anthropologists study and talk about economic, kinship, political, gender, and religious systems, and cultural change.
- Apply the concept of culture to analyze cross-cultural issues in Hawai'i, the US, and the world.
- Identify cross-cultural differences and similarities in multicultural societies such as Hawai'i
- Describe patterns of culture in societies which utilize various strategies of adaptation to their environments, including subsistence patterns, political organization, social organization, and stratification.
- Carry out ethnographic fieldwork in a subculture on O'ahu and produce a written description of the culture.
- Apply anthropological perspectives and research methods to careers and research outside of the discipline.
- Examine his/her own life and culture in a more critical manner in relation to the lives of people in other cultures.

### **ANTH 175 Polynesian Surf Culture (3)**

Provides students with an understanding of surf culture in the Pacific Basin. Environmental and cultural factors are assessed in relation to surfing's development in Polynesia, integration into Hawaiian culture, decline due to Western influence, and revitalization as a modern recreational activity. The modern surfing industry is also assessed through a cultural perspective that analyzes business practices utilized by surfing organizations today. (3 hours lecture)

*Corequisite:* ANTH 175L

DS

The student learning outcomes are:

- Demonstrate an understanding and basic knowledge of environmental and cultural factors affecting the development of surfing in Polynesia, surfing's integration into Hawaiian culture, its decline due to Western influence, and its revitalization as a modern recreational activity.
- Coherently address modern social and legal issues relating to surfing.

### **ANTH 175L Surf Culture Field Lab (1)**

Complements the lecture materials presented in the ANTH 175. Provides students with an understanding of surf culture in the Pacific Basin using O'ahu as a model for understanding ancient and modern surfing culture in Hawai'i. Field activities include surfing demonstrations and instruction, opportunities to speak with local cultural informants, and field trips to various museums to learn about Hawai'i's surfing heritage. A coastal tour of O'ahu will be made to study the history of several major surf breaks. (3 hours laboratory)

*Corequisite:* ANTH 175

DS

The student learning outcomes are:

- Demonstrate an understanding and basic knowledge of environmental and cultural factors affecting the development of surfing in Polynesia, surfing's integration into Hawaiian culture, its decline due to Western influence, and its revitalization as a modern recreational activity.
- Demonstrate an understanding of the principles of anthropology as they apply to the creation and shaping of surfing culture, especially on O'ahu.
- Coherently address modern social and legal issues relating to surfing.

### **ANTH 210 Archaeology (3)**

This course is an introduction to prehistoric archaeology providing an overview of methods and techniques of excavation and laboratory analysis and a brief survey of theory in relation to change and diversity in prehistoric human groups. (3 hour lecture)

DS

The student learning outcomes are:

- Categorize and evaluate the cultural and environmental processes which shape the archaeological record.
- Demonstrate and compare the major methods used by archaeologists in the field and in the laboratory to discover, excavate, date and interpret human cultural materials. Be able to evaluate the validity and usefulness of the various methods with relationship to actual sites.
- Examine the major explanatory concepts and theories in

## Course Descriptions

archaeology, and analyze how they are used to develop an understanding of development, change and diversity in prehistoric human groups.

- Analyze examples from specific areas with an emphasis on Hawai'i to explore how archaeology has been used/misused to develop scientific and popular views of prehistory.
- Examine and evaluate major issues in Hawai'i in modern archaeology, especially as they Cultural Resource Management.
- Discuss the ethical, legal and social implication of archaeological work especially in relation to NAGPRA and how these issues relate to current debates in Hawai'i.

### **ANTH 296 Special Topics in Anthropology (3)**

Students will investigate important topics, issues, or subfields within the discipline of Anthropology. May be repeated up to 9 credits with different topics. (3 hours lecture)

*Prerequisite: "C" or better in ANTH 151 or ANTH 152*

The student learning outcomes are:

- Identify the important concepts and facts particular to the selected course topic.
- Analyze and interpret the nature and significance of the selected course topic.
- Investigate connections between the selected course topic and contemporary events and issues.

## Aquaculture

### **AQUA 106 Small Scale Aquaculture (3)**

Survey of possibilities of small scale aquaculture. Application of basic biological and ecological concepts and theories to the selection, planning and design of small scale aquaculture systems. (3 hours lecture)

*Recommended Preparation: Registration in AQUA 106L.*

DB

The student learning outcomes are:

- Describe past and present aquaculture technologies.
- Plan and design a small scale aquaculture system.
- Select appropriate small scale aquaculture organisms.
- Determine the optimal conditions for cultivating small scale aquaculture organisms.
- Develop a small-scale aquaculture husbandry and management plan.
- Evaluate the economic feasibility of developing a small-scale aquaculture system.

### **AQUA 106L Small Scale Aquaculture Laboratory (1)**

Companion laboratory to AQUA 106, Small Scale Aquaculture. Practical, hands-on experiences in small scale aquaculture. Laboratory/field trip class. (3 hours laboratory)

*Prerequisite: Credit for or registration in AQUA 106.*

DY

The student learning outcomes are:

- Construct and operate different kinds of small-scale aquaculture systems.
- Identify and classify common species of aquaculture organisms.
- Identify anatomical (internal and external) features of

aquaculture organisms.

- Operate a small-scale aquaculture system to successful harvest of target species.
- Monitor culture conditions (physical, chemical and biological) in small-scale aquaculture systems.
- Demonstrate techniques for the cultivation of live food cultivation.
- Demonstrate techniques for the reproduction of aquaculture species.

### **AQUA 201 The Hawai'i Fishpond (3)**

An introduction into the history, development, biology and ecology, management, restoration, and future of Hawaiian fishponds. This course will study traditional Hawaiian fishponds, merging traditional knowledge with the principles of modern Western science. (3 hours lecture)

*Recommended Preparation: Registration in AQUA 201L.*

DB

The student learning outcomes are:

- Explain the process and philosophical basis of scientific inquiry.
- Distinguish between the types of traditional Hawaiian fishponds, the history of their construction and use throughout the Hawaiian Islands, how and where they were constructed, their operation and management, their characteristics, and their biota.
- Describe the oceanography, biology and ecology of Hawaiian fishponds.
- Describe the basic principles of aquaculture, including pond dynamics, feeding regimes, cultivated species propagation and growth, disease management, production, harvesting and maintenance.
- Discuss the status of Hawaiian fishponds in modern times, including their restoration and their future.

### **AQUA 201L The Hawai'i Fishpond Lab (1)**

An introduction into the history, development, biology and ecology, management, restoration, and future of Hawaiian fishponds. This course will study traditional Hawaiian fishponds, merging traditional knowledge with the principles of modern Western science. (3 hours laboratory)

*Prerequisite: Credit for or registration in AQUA 201 or consent of instructor.*

DY

The student learning outcomes are:

- Use the scientific method of inquiry to study a Hawaiian fishpond.
- Apply the concepts learned in AQUA 201 to an experimental and hands-on observational setting.
- Use analytical tools and instruments to study the oceanography, biology and ecology of Hawaiian fishponds.
- Collect, reduce, and interpret data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Identify and classify common fishpond species.
- Design a Hawaiian fishpond.
- Manage all aspects of a Hawaiian fishpond.



## Art

### ART 101 Introduction to the Visual Arts (3)

Art 101 is an introductory course that focuses on the question "What is the nature of visual art?" and the forms and conditions under which art is expressed. Projects will be required. Independent field trips to art galleries may be required. (3 hours lecture)

DA

The student learning outcomes are:

- Identify how an appreciation of the visual arts' influences the quality of life.
- Analyze how the elements of form and principles of design work together with the creative process to produce a work of art.
- Describe individual art disciplines, media and specific methods of making art.
- Define major historical and contemporary movements in art and discuss how art reflects its time and culture.
- Execute studio art projects in order to experience visual concepts, art disciplines and media in each of the following:
  - Maintain a comprehensive sketchbook demonstrating understanding of the elements of art.
  - Create at least one basic 2D and 3D studio art project, utilizing media specific to the successful outcome of each project.
  - Execute one project based upon art history or museum observation.

### ART 104D Introduction to Printmaking/Screen Printing (3)

Studio experience mainly for non-majors. An introduction to printmaking providing experience in the development of skills used in designing for screen printing on paper. Includes skill in photo screening. May be repeated up to 6 credits. (6 hours studio)

DA

The student learning outcomes are:

- Demonstrate a knowledge and understanding of the elements of art, principles of design, and the creative process.
- Select and use screen printing materials.
- Complete the creative problem-solving process, from planning and discovery to implementation and evaluation.
- Examine the process of integrating content and meaning with visual form in the screen printing process.

### ART 105B Introduction to Ceramics—Handbuilding (3)

Studio experience mainly for nonmajors. An introduction to clay as an art medium. Emphasis on basic handbuilding techniques, three-dimensional concepts in clay, glazing, decorating and firing kilns.

*NOTE: Art Majors: ART 105B and ART 105C must both be taken to receive equivalency at UH Mānoa as an art elective. Liberal Arts Students: ART 105B or ART 105C will transfer to fulfill the Humanities DA core requirements. (6 hours studio)*

DA

The student learning outcomes are:

- Demonstrate through finished ceramic objects a basic understanding of the hand building techniques.
- Comprehend and sensitively apply the visual elements of

line, shape, color, texture, volume and mass and the design principles of balance, rhythm, dominance, contrast, variation and unity to the execution of ceramic objects.

- Demonstrate a basic understanding of color and color theory as it related to the use of glazes.
- Complete the creative problem-solving process from planning and discovery to implementation and evaluation.
- Demonstrate a basic understanding of drawing as a means of notation, conceptualization and visual organization.
- Demonstrate an awareness of historic and contemporary examples of ceramics.
- Begin to use the ceramic process to express personal imagery.
- Demonstrate an ability to articulate the concepts and intent of a finished ceramic piece.

### ART 105C Introduction to Ceramics—Wheelthrowing (3)

Studio experience mainly for non-majors. Introduction to the potter's wheel. Emphasis on techniques of forming basic wheelthrown shapes on the electric or kick wheel. Emphasis also on decorating, glazing, and firing of ceramic pieces.

*NOTE: Art Majors: ART 105B and ART 105C must both be taken to receive equivalency at UH Mānoa as an art elective. Liberal Arts Students: ART 105B or ART 105C will transfer to fulfill the Humanities DA core requirements. (6 hours studio)*

DA

The student learning outcomes are:

- Demonstrate through finished ceramic objects a basic understanding of wheel throwing techniques.
- Comprehend and sensitively apply the visual elements of line, shape, color, texture, volume and mass and the design principles of balance, rhythm, dominance, contrast variation and unity to the execution of ceramic objects.
- Demonstrate a basic understanding of color and color theory as it relates to the use of glazes.
- Complete the creative problem-solving process from planning and discovery to implementation and evaluation.
- Demonstrate a basic understanding of drawing as a means of notation, conceptualization and visual organization.
- Demonstrate an awareness of historic and contemporary examples of ceramics.
- Begin to use the ceramic process to express personal imagery.
- Demonstrate an ability to articulate the concepts and intent of a finished ceramic piece.

### ART 107 Introduction to Photography (3)

Studio experience mainly for non-majors. An introduction to black and white photography emphasizing a variety of picturemaking techniques. Assignments and field trips. Student must have film camera with adjustable shutter speeds and aperture settings. (6 hours studio)

DA

The student learning outcomes are:

- Operate your camera to obtain correctly focused and exposed negatives, and use aperture and shutter speeds to create an intended image.
- Develop black and white film and make contact prints.

## Course Descriptions

- Operate an enlarger to make black and white prints that express, enhance and communicate an intended image.
- Process and present photographic prints that aesthetically express your feelings, ideas and/or concepts.

### **ART 108 Elementary Studio: Drawing and Painting (3)**

Art 108 is a studio course, which includes drawing and an introduction to acrylic painting techniques, with an emphasis on acrylic painting. Course content will also emphasize composition and color theory. May be repeated up to 6 credits. (6 hours studio)  
DA

The student learning outcomes are:

- Comprehend and use basic drawing techniques to create finished drawings.
- Use appropriate acrylic painting and color techniques to make finished paintings.
- Evaluate the creative problem-solving process to complete a final composition.
- Evaluate and critique works of art by using art terminology.
- Distinguish seeing from looking.
- Create a personal drawing and painting style through art practice and theory.

### **ART 111 Introduction to Watercolor Painting (3)**

Art 111 is an introduction to watercolor painting materials and techniques. May be repeated up to 6 credits. (6 hours studio)

*Recommended Preparation: ART 101 and ART 113.*

DA

The student learning outcomes are:

- Complete assignments that reflect the use of watercolor techniques and design principles in watercolor composition.
- Use and care properly for watercolor painting tools.
- Discuss watercolor painting concepts and techniques.
- Critique work based on watercolor concepts and techniques.

### **ART 113 Introduction to Drawing (3)**

Art 113 is an introduction to the materials and techniques of drawing, focusing on line drawing, rendering, and the use of perspective. This course will include the study of the drawings of old and modern masters. May be repeated up to 6 credits. (6 hours studio)

*Recommended Preparation: ART 101.*

DA

The student learning outcomes are:

- Complete assignments that reflect the use of basic visual elements to create an illusion of space and form.
- Use linear perspective.
- Demonstrate through drawings, skill in hand-eye coordination.
- Use skillfully a variety of drawing materials and techniques.
- Identify drawing materials and techniques used by the old and modern masters.

### **ART 114 Introduction to Color (3)**

Art 114 is an introductory course focusing on color theory and the application of color as related to studio art practice. (6 hours studio)

*Recommended Preparation: ART 101.*

DA

The student learning outcomes are:

- Formulate a personal and expressive sense of color.
- Recognize and comprehend color interaction, color phenomena, color theories and vocabulary specific to color study.
- Master skills in paint mixing, color matching and application as well as other art processes, to creatively solve color problems.
- Utilize the multiple dimensions of color: hue, value, intensity and temperature in specific color projects.
- Recognize and properly use the three types of color applications: opacity, transparency and optical mixing.

### **ART 115 Introduction to 2D Design (3)**

Art 115 is an introductory course, which focuses on the basic design concepts, elements and principles of art. This course emphasizes projects in basic two-dimensional design. (6 hours studio)

*Recommended Preparation: ART 101.*

DA

The student learning outcomes are:

- Become familiar with and successfully use the principles of design to develop individual creative designs and dynamic compositions.
- Use a variety of strategies to create and evaluate the creative problem-solving process through intuitive processes, revisions and risk-taking, to arrive at a final composition.
- Demonstrate proper use of diverse media and materials to produce a work of art.
- Evaluate and critique works of art and presentation by using art terminology.
- Identify historic references within the theory and practice of design.
- Organize a portfolio of works that demonstrate aesthetic understanding of the principles of design, elements of form, and appropriate presentation of art.

### **ART 116 Introduction to Three-Dimensional Composition (3)**

Focuses on building three-dimensional structures and basic sculptural forms using various approaches and materials, as well as the designing of creative environments. The student's awareness of the natural order and the aesthetic aspect of design is broadened and the student learns the use of texture, volume, color, temperature, proportion, space, time and movement in a three-dimensional form. (6 hours studio)

DA

The student learning outcomes are:

- Demonstrate an understanding of the following sculpting processes: assemblage, carving, mold making, metal construction and casting.
- Utilize creative problem solving.
- Demonstrate and sensitively apply the visual elements of line, texture, color, volume and mass and the design principles of balance, directional force, rhythm, dominance, contrast, variation, and proportion.
- Demonstrate a basic understanding of drawing as a means of notation, conceptualization and visual organization.

## Course Descriptions

- Demonstrate an awareness of historic and contemporary examples of sculpture.
- Begin to use the sculpting process to express personal imagery.

### **ART 123 Introduction to Oil Painting (3)**

Art 123 is an introduction to the materials and techniques of oil painting. Classical painting techniques will be emphasized. May be repeated up to 6 credits. (6 hours studio)

*Recommended Preparation:* ART 101, 113 and 114.

DA

The student learning outcomes are:

- Execute paintings using traditional painting techniques.
- Complete the technical process from preparation of the ground (canvas) to the completion of a painting.
- Execute underpainting, grisaille and limited palette painting techniques.
- Apply the visual elements of line, shape, light and shadow, color, texture and space as well as the design principles of balance, rhythm, focal points, implied movement and unity to a painting.
- Discuss oil painting concepts and techniques.
- Critique work based on oil painting concepts and techniques.

### **ART 175 Survey of Global Art (3)**

Art produced in Asia, Africa, Native America, Europe, and the Pacific Islands, from prehistory to the 15th century. Religious and philosophical ideas expressed in architecture, painting, prints, sculpture, applied art, body art, and textiles. (3 hours lecture)

FGA

The student learning outcomes are:

- Distinguish how art expresses world views and reflects societies' organization and interaction with other cultures.
- Analyze art through religious, political, and economic factors that have shaped culture in different parts of the globe at different times.
- Analyze a work of art through the recognition of elements of style.

### **ART 176 Survey of Global Art II (3)**

Art produced in Asia, Africa, Native America, Europe, and the Pacific Islands, from the 15th century to the present. Religious and philosophical ideas expressed in architecture, painting, prints, sculpture, applied art, body art, and textiles. (3 hours lecture)

FGB

The student learning outcomes are:

- Distinguish how art expresses world views and reflects societies' organization and interaction with other cultures
- Analyze art through religious, political, and economic factors that have shaped culture in different parts of the globe at different times.
- Analyze a work of art through the recognition of elements of style.

### **ART 189 Introduction to Hawaiian Art (3)**

An integrated beginning studio art course, which offers students

the opportunity to understand and express Hawaiian cultural perspective through contemporary visual arts activities. (6 hours lecture/lab)

*Recommended Preparation:* HAW 101 or one semester high school Hawaiian.

DA

The student learning outcomes are:

- Demonstrate a basic understanding of the historical and formal qualities of objects produced by Hawaiians through pre-contact, post-contact, and contemporary times.
- Demonstrate a basic understanding of art making as a means of contemporary notation, conceptualization and visual organization.
- Develop an appreciation of Hawaiian art, the variety and richness of its art forms and the cultural significance inherent in its production.
- Demonstrate how the Hawaiian language informs the process of art making and offers insights into the metaphorical nature intrinsic in Hawaiian art.
- Use various art making techniques and processes to explore personal imagery.
- Collaborate with others to make creative decisions.

### **Art 202 Introduction to Digital Imaging (3)**

Combined theory and practice examining major techniques, concepts, and aesthetics in contemporary digital image production. Direct studio experience in essential software, printing techniques and hardware necessary in producing the gallery quality inkjet print. (6 lecture/lab)

*Prerequisite:* Grade of "C" or better in Art 107 and Art 113, or consent from instructor.

DA

### **ART 207 Intermediate Photography: Techniques and Aesthetics of Photography (3)**

Basic techniques and esthetics of black and white photography; the camera as a tool for communication and self expression. Student must have a film camera with adjustable shutter speeds and aperture settings. May be repeated up to 6 credits. (6 hours studio)

*Prerequisite:* Credit for ART 107 or consent of instructor.

DA

The student learning outcomes are:

- Conceptualize an idea and translate it photographically into a visual form.
- Use different black and white films and development procedures to convey and express different photographic aesthetics.
- Express through refined photographic techniques your ideas, feelings and/or concepts.
- Produce photographic prints that require proficient skill in darkroom techniques.

### **ART 213 Intermediate Drawing (3)**

Art 213 is a continuation and development of drawing ideas and skills introduced in Art 113. A variety of materials, techniques and concepts are explored, particularly pertaining to drawing concepts unique to the 20th century. Portraiture will also be introduced. May



## Course Descriptions

be repeated up to 6 credits. (6 hours studio)

*Recommended Preparation:* ART 101 and ART 113.

DA

The student learning outcomes are:

- Exhibit a continued development of the skills and craft of drawing, as introduced in ART 113.
- Use perspective traditionally as well as in imaginative and creative ways.
- Draw portraits from life.
- Execute drawing concepts unique to the 20th century.
- Use drawing skills necessary to visually express creative ideas.

### **ART 214 Introduction to Life Drawing (3)**

Art 214 is an introductory figure drawing course. Anatomical construction, light, space, diagrammatic analysis, and thematic content will be studied through the drawing process. May be repeated up to 6 credits. (6 hours studio)

*Prerequisite:* Credit for ART 113 or consent of instructor.

*Recommended Preparation:* ART 101 and 213.

DA

The student learning outcomes are:

- Draw the human figure accurately and expressively.
- Investigate through drawing, the interaction of structure, anatomy, design and expression, as it relates to the figure.
- Demonstrate an understanding of the relationship between the internal structure of the figure and its effects on topography.
- Discuss figure drawing concepts and techniques.
- Critique work based on figure drawing concepts and techniques.

### **ART 220 The Windward Atelier (aka Atelier Hawai'i) Intensive Study in Drawing and Painting (6)**

Art 220 is an intensive course of study in the classical techniques of drawing and painting. Cast drawing, portraiture and figure painting will be the focus of instruction. The Windward Atelier is designed primarily for those students who have some prior studio experience in drawing; however, students of all skill levels are welcome. (12 hours studio)

DA

The student learning outcomes are:

- Develop observational drawing and painting skills using classical measuring and sighting techniques, mapping, and memory to make accurate depictions from plaster casts and the live figure model.
- Perceive, key, and record values accurately and effectively in observational drawings and paintings.
- Execute the painting processes, from preliminary drawings and canvas preparation to the completion of a painting, including the proper use and care of the painter's studio implements.
- Discuss and critique work based on classical drawing and painting concepts and techniques.

### **ART 223 Intermediate Painting (3)**

Survey of late 19th and early 20th century studio practice. Completion of paintings which concentrate on historical styles as well as on a more personal direction. May be repeated for up to 6 credits. (6 hours studio)

*Prerequisite:* Credit for ART 123 or consent of instructor.

The student learning outcomes are:

- Create paintings that exhibit a working knowledge of recent developments in the pictorial structure of paintings.
- Understand and use the dynamic organization of pattern, two and three dimensional space and rhythmic demands of the "flat" picture plane.
- Confidently paint shape, edges, color relationships and space with increased sensitivity.
- Develop original and personal concepts and techniques.
- Demonstrate an understanding of the technical aspect of the painting process.
- Develop the language skills used in the critical evaluation of paintings.

### **ART 224 Painting from Life (3)**

Art 224 is a survey of the figurative tradition of painting, using the model as the primary subject matter. This course is an intensive studio experience of painting from the model. May be repeated up to 6 credits. (6 hours studio)

*Prerequisite:* Credit for ART 123 and 214, or consent of instructor.

DA

The student learning outcomes are:

- Create paintings that exhibit a working knowledge of the figurative tradition of painting from the Renaissance to the present.
- Paint the human figure accurately and expressively.
- Sensitively apply the visual elements of line, shape, light and shadow, color, texture and space, and the design principles of balance, rhythm, focal points, implied movement and unity to figure painting projects.
- Execute the painting process from canvas preparation to the completion of a painting.
- Create limited palettes, and explore color harmony and balance within a painting.
- Use art terminology to evaluate paintings.

### **ART 243 Intermediate Ceramics—Handbuilding (3)**

Development of handbuilding techniques, sculptural and vessel concepts, and surface treatment and glazing. May be repeated up to 6 credits.

*NOTE: Art Majors: ART 243 and 244 must both be taken to receive equivalency at UH Mānoa as ART 242, Introduction to Ceramics. (6 hours studio)*

*Prerequisite:* Credit for ART 105B or consent of instructor.

*Recommended Preparation:* ART 101, 116.

DA

The student learning outcomes are:

- Demonstrate an understanding of the three basic handbuilding techniques and the potential of each as structural and decorative elements.
- Demonstrate an understanding of two different clay bodies and their potential as structural and decorative elements.
- Demonstrate an awareness of the varieties of materials and techniques of the glazing and firing processes.

- Demonstrate innovative and inventive problem-solving through creative decision-making and insightful articulation of finished ceramic vessels and sculptural forms.
- Demonstrate an ability to generate creative ideas through three-dimensional visualization techniques.
- Demonstrate an understanding of color and color theory as it relates to three-dimensional form in the use of glazes and oxides.
- Demonstrate an understanding of historic and contemporary examples of hand built ceramics.
- Demonstrate an understanding of drawing as a tool for conceptualization and documentation of personal imagery and technical investigation of the ceramic process.
- Demonstrate an appreciation for and awareness of ceramic objects.
- Demonstrate an awareness of the visual elements and the design principles while creating ceramic vessels and sculptural forms.
- Demonstrate an ability to articulate the concepts and intent of a completed piece.

### **ART 244 Intermediate Ceramics–Wheelthrowing (6)**

Development of wheelthrowing techniques, vessel and structural concepts, and surface treatment and glazing. May be repeated up to 6 credits.

*NOTE: Art Majors: ART 243 and 244 must both be taken to receive equivalency at UH Mānoa as ART 242, Introduction to Ceramics. (6 hours studio)*

*Prerequisite: Credit for ART 105C, or consent of instructor.*

*Recommended Preparation: ART 101, 105B, 116.*

DA

The student learning outcomes are:

- Demonstrate through completed projects, a basic proficiency in wheel throwing techniques.
- Demonstrate an understanding of color and color theory through the use of various decorated techniques: slips, oxides, engobes, stains, and glazes.
- Demonstrate an understanding of clay bodies, oxidation and reduction firing, and of the basic chemical compositions of glazes.
- Demonstrate an awareness of the visual elements and the design principles while creating ceramic vessels and sculptural forms.
- Demonstrate innovative and inventive problem solving, through creative decision-making and insightful articulation of finished ceramics vessels and sculptural forms.
- Demonstrate an ability to generate creative ideas through three-dimensional visualization techniques.
- Demonstrate an understanding of drawing as a tool for conceptualization and documentation of personal imagery and technical investigation of the ceramic process.
- Demonstrate an understanding of historic and contemporary examples of wheel made ceramics.
- Demonstrate an ability to articulate the concepts and intent of a finished ceramic object.

### **ART 251 Mold Making for Ceramics and Sculpture (3)**

ART 251 is an introduction to mold making techniques and their application in the creation of functional ceramics and sculptural objects. Emphasis on the fabrication of various types of plaster molds from original and “found” objects, pressing and casting forms from molds in clay and other non-metal media, and various finishing techniques including glazing and firing. May be repeated up to 6 credits. (6 hours studio)

*Recommended Preparation: ART 101, ART 105B, 105C, or ART 116*

DA

The student learning outcomes are:

- Select, fabricate, and employ various mold types in the making of functional ceramics and sculptural objects.
- Design and produce original objects in clay and other materials to be used as mold patterns.
- Produce finished functional and artistic objects that explore the possibilities of mold made forms.

### **ART 253 Sculpture–Figure Modeling (3)**

Modeling the human figure in clay, with emphasis on the basic skeletal structure and muscles in relation to surface modulation, proportion, volume and gesture. May be repeated up to 6 credits. (6 hours studio)

DA

The student learning outcomes are:

- Demonstrate through finished sculpture, an understanding of figure and portrait modeling, mold-making, fabrication, and the casting process and materials.
- Demonstrate an understanding of drawing as a tool for conceptualization and documentation of personal imagery.
- Demonstrate an awareness of historic and contemporary examples of sculpture.
- Perceive and sculpt volume and mass with increased sensitivity and personal confidence.
- Trust one's own decisions, insights, and perceptions during the creative problem-solving process.
- Demonstrate an ability to articulate the concepts and intent of a finished sculpture.

### **ART 260 Gallery Design and Management (3)**

Design theory and techniques for presentation of art work and mounting an exhibition. May be repeated up to 6 credits. (6 hours studio)

DA

The student learning outcomes are:

- Plan and install an art display using the appropriate skills and techniques of gallery design and management.
- Evaluate spatial relationships, design principles and color theory as related to gallery displays and discover the role intuition plays in the arts and gallery design.
- Critique and evaluate works of art and presentation by using art terminology.
- Prepare publicity related to gallery practice to include press releases and gallery invitations.
- Generate a portfolio documenting art exhibitions in our local community.

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### **ART 269V Study Abroad (Designated Region, Variable Credit) (1-6)**

An on-site study of the art/architecture of a designated location(s), using lectures and discussions and/or an art studio medium as a tool to analyze, understand and appreciate the development of this region's art/architecture. (30 hours lecture/lab per credit trip total)

*Prerequisite: Meet with instructor for approval.*

DH

The student learning outcomes are:

- Become more informed about the peoples and culture of the designated locations visited.
- Become aware of Internationalism and an interdependency of cultures.
- Understand the development of ceramic art and/or architecture of the designated locations visited.
- Use group discussions, essays and examinations, and a visual studio process as a tool to analyze, understand and sensitively appreciate and appraise forms and structures of the art studied.

## Astronomy

### **ASTR 110 Introduction to Astronomy (3)**

Introduction to the astronomical universe for non-science students. (3 hours lecture)

DP

The student learning outcomes are:

- Outline the development of astronomy from ancient times to present and explain the role of the scientific method in this historic context.
- Describe and explain the apparent motions of the celestial bodies, especially as related to naked-eye observations.
- Identify the appropriate instruments used by astronomers to understand the universe.
- Outline the origins of our solar system and appraise the leading cosmological theories of the origin of the universe.
- Describe the physical and chemical properties of the objects in our solar system and apply the concept of comparative planetology.
- Describe the physical and chemical nature of stars, and especially our sun, and apply the astronomical techniques used to measure stellar properties.
- Outline the evolutionary stages in a star's life and compare and contrast the structure of our Milky Way and other galaxies.
- Apply astronomical concepts to the search for extraterrestrial life.

### **ASTR 110L Introduction to Astronomy Laboratory (1)**

Demonstration of astronomical principles through laboratory observations and analysis of astronomical data. Not required for ASTR 110. (3 hours laboratory)

*Prerequisite: Credit for or registration in ASTR 110 or consent of instructor.*

DY

The student learning outcomes are:

- Apply the scientific method to a selected group of topics in astronomy.

- Collect, report and analyze data obtained in a laboratory and/or observatory setting in a manner exhibiting organization, proper documentation and critical thinking.
- Demonstrate a basic understanding of the use of standard astronomical instruments.
- Perform image analysis, especially as related to astronomical photographic data.
- Identify environmental factors, which affect the outcome of an experiment or observation and apply basic error analyses techniques.
- Demonstrate a working knowledge of computer on-line and Internet astronomical programs.

### **ASTR 130 Introduction to Archaeoastronomy (3)**

Introduction to the interdisciplinary study of cultures and astronomy for non-science majors. Topics include naked-eye astronomy, myths and rituals, calendar systems, architectural alignments and navigation. (3 hours lecture)

*Recommended Preparation: ASTR 110.*

DP

The student learning outcomes are:

- Describe and explain the observable daily motions of celestial bodies.
- Identify the phases of the moon and explain what causes them.
- List some cultural associations of the planets.
- Identify and use measurement tools for determining astronomical alignments.
- Illustrate how astronomical knowledge can be used in navigation.
- Compare and contrast how different cultures used astronomical knowledge.
- Assess the strengths and weaknesses of an interpretation of evidence from an archaeoastronomy site.
- Explain how culture and science are interrelated.

### **ASTR 180 Planetary Astronomy (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. (3 hours lecture)

*Recommended Preparation: The student should have a good operational familiarity with high school algebra.*

DP

The student learning outcomes are:

- Outline the development of planetary astronomy from ancient times to present and explain the role of the scientific method in this historic context.
- Describe the major geological and atmospheric features of the objects in our Solar System.
- Describe the physical and chemical properties of the objects in our solar system and apply the concept of comparative planetology.
- Outline the origins of our Solar System and formulate models that explain the different physical and chemical characteristics of objects within the Solar System.



- Describe the properties of our Sun and their effects on objects in the Solar System.
- Outline techniques for discovering extrasolar planets and extraterrestrial life.

### **ASTR 181 Stellar Astronomy (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. (3 hours lecture)

*Recommended Preparation: The student should have a good operational familiarity with high school algebra; credit in ASTR 110 and/or ASTR 180.*

DP

The student learning outcomes are:

- Outline the development of stellar astronomy from ancient times to present and explain the role of the scientific method in this historic context.
- Identify the appropriate instruments used by astronomers to understand the universe and describe the nature of electromagnetic radiation and its role in deciphering the mysteries of stellar astronomy.
- Describe the physical and chemical nature of stars, and especially our sun, and apply the astronomical techniques used to measure stellar properties.
- Outline the evolutionary stages in a star's life, including the role of the interstellar medium.
- Compare and contrast the structure of our Milky Way and other galaxies.
- Outline and appraise the leading cosmological theories of the origin of the universe.
- Apply astronomical concepts to the search for extraterrestrial life.

### **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. Includes planetary, solar and stellar observations. (3 hours lecture)

*Prerequisite: Credit for ASTR 110; or ASTR 180 and ASTR 181.*

*Recommended Preparation: Student should have operational familiarity with high school algebra and basic trigonometry.*

DP

The student learning outcomes are:

- Use appropriate celestial charts and astronomical time system to identify and locate celestial objects, such as stars, nebulae, galaxies, planets, satellites and asteroids.
- Describe the primary functions of an astronomical telescope and major detectors, such as spectrometers and photometers.
- Apply basic principals in planetary remote sensing and image processing.
- Outline astronomical techniques involved in observing

planetary and stellar objects, such as variable stars, asteroids and the Sun and Moon.

- Compare and contrast the research involved in optical, radio, infrared and cosmic ray astronomy.
- Use appropriate techniques to analyze astronomical data.

### **ASTR 250L Observational Astronomy Lab (1)**

A lab course in modern observational astronomy, with emphasis on "hands-on" use of instruments to acquire data with research-grade telescopes at the college's Lanihuli Observatory. Remote telescope observations may also be used. Students will gain on-site observing experience with CCD photometry and spectroscopy through direct acquisition and data analysis using modern laboratory data reduction software. Applications to planetary, solar, stellar and, where possible, galactic astrophysics will be covered. (3 hours laboratory)

*Prerequisite: credit or current enrollment in ASTR 250.*

*Recommended Preparation: Student should have operational familiarity with high school algebra and basic trigonometry.*

DY

The student learning outcomes are:

- Use appropriate celestial charts and astronomical time system to identify and locate celestial objects, such as stars, nebulae, galaxies, planets, satellites and asteroids.
- Describe the fundamentals optics and telescopic observations.
- Operate and make observations with optical, radio and cosmic ray telescopes.
- Apply basic principals in planetary remote sensing and image processing using both real-time observations and archived data.
- Apply the techniques of astrophotography and spectrometry.
- Use appropriate techniques to analyze astronomical data.

### **ASTR 281 Space Explorations (3)**

Current topics in planetary exploration, extraterrestrial life, and space resources and colonization. (3 hours lecture)

*Prerequisite: Credit for ASTR 110 or consent of instructor.*

DP

The student learning outcomes are:

- Outline the characteristics and origins of objects in our solar system, including the sun, planets, moons, meteoroids, asteroids and comets.
- Compare and contrast terrestrial and Jovian worlds and apply geological and atmospheric concepts to comparative planetology.
- Explain the effects and implications of collisional impacts on planetary surfaces.
- Apply the laws of planetary motion and celestial mechanics.
- Outline the historical development of manned and unmanned space flight.
- Identify and describe the appropriate instruments, detectors and space probes used by astronomers and space scientists to explore the solar system, especially in the area of remote sensing.
- Discuss the future of space colonization and exploitation.
- Discuss the nature and origin of life on earth and apply the astronomical concepts related to the search for extraterrestrial life.

## Course Descriptions

### **ASTR 294V Special Topics in Astronomy (1-4)**

This course covers current topics in astronomy. The course is designed to have variable credit to coincide with the rigor of the topic. May be repeated up to 8 credits with different topics. A course description will be presented in the schedule of classes. (1 to 4 hours lecture)

*Prerequisite:* Credit for ASTR 110 or consent of instructor.

DP

The student learning outcomes are:

- Identify the important concepts and facts presented for the topic under examination.
- Make inferences and draw conclusions from the special topics under discussion.
- Apply skills appropriate to the topic under discussion.
- Evaluate the science and technology of astronomy and space science.

## Biochemistry

### **BIOC 141 Fundamentals of Biochemistry (3)**

Biological chemistry focusing on the integration of concepts from general, inorganic, and biochemistry and their application to living systems. Satisfies the one-semester chemistry requirement for pre-nursing and pre-dental hygiene majors. (3 hours lecture)

*Prerequisite:* "C" or better in MATH 25, 26, 28, 29, 75X or higher.

DP

The student learning outcomes are:

- Utilize precise chemical language to effectively communicate biochemical and allied health-related concepts and results.
- Analyze and apply appropriate procedures for solving biochemical and allied health-related calculations involving solids, liquids, gases, and solutions.
- Relate the location of an element in the periodic table to its electronic structure and chemical reactivity.
- Describe ionic and covalent bonding theories and apply them to the construction of proper Lewis structures and prediction of molecular characteristics.
- Relate biochemical and allied health-related concepts, theories and laws to everyday phenomena.

## Biology

### **BIOL 100 Human Biology (3)**

Introduction to structure and functions of cells, tissues, organs, and systems of the human body. Topics related to physical fitness, nutrition, health, and disease. Not intended for science majors. Students who have received credit for or are currently enrolled in ZOOL 101 may not receive credit for BIOL 100. (3 hours lecture)

DB

The student learning outcomes are:

- Use scientific reasoning to answer a question about phenomena in our natural universe or to determine the validity of a scientific claim.
- Distinguish between living things and inanimate objects.
- Relate cell structure and function to the architecture and functioning of the human body.

- Use information about the form (anatomy) and function (physiology) of the human body to make effective decisions about human health.
- Describe the interrelationships between humans and their environments.

### **BIOL 100L Human Biology Laboratory (1)**

Laboratory to accompany BIOL 100 (Human Biology). Emphasizes the application of the scientific method, basic laboratory methods and procedures in biology, and facts and principles of human anatomy and physiology. (3 hours laboratory)

*Prerequisite:* Credit for or registration in BIOL 100 or equivalent preparation or consent of instructor.

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned in BIOL 100 to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Demonstrate the use of some of the standard tools of the biological scientist, such as microscopes, scales, spectrophotometers, computers, and other analytical tools.
- Apply the standard analytical procedures needed to study human biology, such as dissection, separation of biological compounds, microscopic examination of cells and tissues, membrane transport mechanisms, energy metabolism, genetics, digestion and nutrition, excretion, skeletal muscle physiology, cardiovascular function, nervous system function, respiration, and blood analyses.
- Recognize and identify basic human tissue types and their distinguishing characteristics.
- Demonstrate basic knowledge of anatomy (structure) and physiology (function) of the fetal pig (using preserved specimens) and human body (using models and figures).

### **BIOL 101 Biology and Society (4)**

Historical development of scientific concepts, characteristics, and interaction of science and society from the perspective of biological sciences. (3 hours lecture, 3 hours laboratory)

*Prerequisite:* Credit in MATH 25, 26, 29, 82 or higher or equivalent preparation; and placement in ENG 100, or consent of instructor.

DB DY

The student learning outcomes are:

- Distinguish science as a way of knowing from other epistemological systems.
- Discuss the historical development of the discipline of biology into what it is today, relating the contributions made by significant individuals and concepts of the past to modern biology.
- Explain the major integrating principles of biology.
- Explain the origin and organization of the diversity of life on Earth.
- Describe how living systems function, relating structure to function, at all levels within the hierarchy of life from molecules

to the biosphere.

- Solve problems in inheritance and genetics.
- Present informed, rational and objective opinions on biologically-related issues important to human society.
- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Demonstrate the use of some of the standard tools and methods of the biological scientist, such as microscopes, scales, spectrophotometers, computers, dissection dichotomous keys, and other analytical tools.
- Identify the major systematic groups to which specimens of living things belong.

### **BIOL 124 Environment & Ecology (3)**

A study of human ecology through the analysis of the interrelationships between science and technology, the means these provide for manipulation of environment and the effects of this manipulation on the environment and on human populations. Lecture/field trip course designed for non-science majors. (3 hours lecture)

DB

The student learning outcomes are:

- Explain the process and philosophical basis of scientific inquiry.
- Describe the basic principles of ecology, including population ecology, community ecology, and ecosystem function.
- Describe the characteristics of the major biomes and ecosystems of the Earth.
- Describe the interrelationships between land, sea, the atmosphere and the living things that occupy these environments.
- Discuss the role that humans play in affecting the characteristics of the environment.
- Evaluate current environmental issues and problems including the solutions and management practices that have been used or offered to address these issues and problems.

### **BIOL 124L Environment & Ecology Laboratory (1)**

Companion laboratory class to BIOL 124, Environment and Ecology. This class, providing hands-on experience in the laboratory and in the field, enhances the student's understanding of basic environmental science and ecological concepts presented in BIOL 124. (3 hours laboratory)

*Prerequisite: Credit for or registration in BIOL 124 or consent of instructor.*

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate environmental phenomena.
- Apply the concepts learned in BIOL 124 to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting

experimental and observational results.

- Demonstrate the use of some of the standard tools of the environmental scientist, such as microscopes, scales, spectrophotometers, various environmental meters, and basic statistical procedures.
- Apply the standard analytical procedures needed to study the environment, such as soil analyses, water quality determinations, stream bioassessments, and quantitative resource inventories.
- Conduct experiments that evaluate how environmental factors affect living organisms.

### **BIOL 171 Introduction to Biology I (3)**

First semester of introductory biology for all life science majors. Topics include: Overview of the science of biology; Cell structure, chemistry, growth, and reproduction; Classical, chromosomal and molecular genetics; Evolution, phylogeny and systematics; and Biology and diversity of viruses and bacteria. (3 hours lecture)

*Recommended Preparation: High school chemistry or college chemistry and registration in BIOL 171L.*

DB

The student learning outcomes are:

- Develop and evaluate a scientific hypothesis.
- Describe cell structure and function.
- Describe how genetic characteristics are passed from generation to generation and how they are manifested into the characteristics of the whole organism.
- Explain how the process of biological evolution influenced the history of life on our planet.
- Classify living things into a hierarchical system of groups based upon morphology, genetics, and phylogeny.
- Describe the characteristics, systematics, and biology of viruses and bacteria.

### **BIOL 171L General Biology Lab I (1)**

Laboratory to accompany BIOL 171. (3 hours laboratory)

*Prerequisite: Credit for or registration in BIOL 171.*

*Recommended Preparation: High school chemistry or college chemistry.*

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned in BIOL 171 to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Demonstrate the use of some of the standard tools of the biological scientist, such as microscopes, scales, spectrophotometers, computers, and other analytical tools.
- Apply the standard analytical procedures of biology, such as chromatography, biochemical analyses, preparation of materials for microscopic examination, culture techniques, and statistical procedures (descriptive statistics and hypothesis testing).

## Course Descriptions

### **BIOL 172 Introduction to Biology II (3)**

Continuation of BIOL 171. Topics include: Origin of eukaryotic organisms, their general characteristics, life cycles, systematics and evolution; Anatomy, physiology and classification of higher plants; Anatomy, physiology, behavior and classification of animals; and Basic ecological principles. (3 hours lecture)

*Prerequisite:* Credit for BIOL 171

*Recommended Preparation:* Concurrent enrollment in BIOL 172L

DB

The student learning outcomes are:

- Contrast the general characteristics, life cycles, evolution and systematics of eukaryotic organisms.
- Describe the detailed biology of higher plants.
- Describe the detailed biology of animals.
- Explain how interacting environmental factors (physical, chemical and biological) determine the distribution and abundance of living things.

### **BIOL 172L General Biology Lab II (1)**

Laboratory to accompany BIOL 172. (3 hours laboratory)

*Corequisite:* BIOL 172.

*Recommended Preparation:* High school biology and college level reading and writing skills.

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned in BIOL 172 to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Apply standard analytical procedures for the comparative study of plants and animals, such as the handling of living and preserved materials for study, dissection procedures, preparation of materials for microscopic examination, and use of dichotomous keys.
- Identify the diagnostic anatomical features of organisms representing major groups of plants and animals.
- Identify the major systematic groups to which specimens of plants and animals belong.

### **BIOL 200 Coral Reefs (3)**

Introduction to the biology, ecology and geology of stony corals and the reef structures they build. Topics include, but not limited to, the following: photobiology, biochemistry, physiology, reproduction, ecology, biogeography and evolution of stony corals; contributions made by other members of the coral reef community, such as algae, invertebrates, fish, sea turtles, sea birds, and marine mammals; reef formation and geomorphology; corals as resources for human utilization and the impacts of human activities upon reefs throughout the world. Emphasis will be on Hawai'i's coral reefs, but comparisons will be made among reefs from other areas. (3 hours lecture)

DB

The student learning outcomes are:

- Explain the process and philosophical basis of scientific inquiry.
- Distinguish between living things and inanimate objects.
- Describe the classification of living things, the kinds of criteria used to classify them, and the formal protocol in naming them.
- Demonstrate an understanding of the biology of corals (e.g., systematics & classification, soft tissue morphology and cytology, skeletal morphology, endosymbiosis with zooxanthellae, modes of feeding, reproduction, environmental factors that influence growth and distribution, and evolution) with an emphasis on Hawaiian corals.
- Describe the ecological relationships among the living components of coral reef communities and their interactions with the physical environment.
- Describe the types of reefs and the processes that create and shape them.
- Describe the resources that coral reefs provide, especially to Pacific island nations and states.
- Describe the impacts of human activities on coral reefs and the significance of these impacts to Pacific island nations and states.

### **BIOL 200L Coral Reef Laboratory and Field Studies (1)**

Laboratory and field studies of the biology, ecology, and geology of stony corals and the reef structures they build; companion course to BIOL 200. (3 hours laboratory)

*Prerequisite:* Credit for or registration in BIOL 200 or consent of instructor.

*Recommended Preparation:* High school biology and algebra.

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned in BIOL 200 to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Demonstrate the use of some of the standard tools of the biological scientist, such as microscopes, scales, spectrophotometers, computers, and other analytical tools.
- Demonstrate the use of specialized tools and methods frequently used in the study of corals and coral reefs.

### **BIOL 265 Ecology and Evolutionary Biology (3)**

Principles of ecology and evolution for life science majors stressing integrated approach and recent advance. (3 hours lecture)

*Prerequisite:* Credit for BIOL 171/171L and 172/172L; or one year of introductory college biology plus labs; or equivalent preparation; or consent of the instructor.

*Corequisite:* BIOL 265L; or consent of instructor

DB

The student learning outcomes are:

- Apply the appropriate terminology when describing, explaining, and applying ecological theory.
- Summarize abiotic environmental features including climate, soil and geographical structure.



## Course Descriptions

- Identify the biological and physical structures of ecosystems, major biogeochemical cycles, and energy flow.
- Examine the basic principles of population dynamics including birth and mortality rates, population growth models, life history strategies, competition and carrying capacity.
- Define the interactions within communities including interspecific competition, predation, and mutualism.
- Describe the evolutionary adaptations of organisms to their environment.
- Give examples of evolutionary principles that produced unique island communities.
- Evaluate the impact of habitat alteration and destruction, loss of biodiversity, and effects of alien species.
- Interpret and produce tabular and graphical representations of information, including tables, graphs, and maps.
- Locate and critique the value of printed and online resources.
- Evaluate the consequences of population growth, increased resource use and pollution on global ecosystems.

### **BIOL 265L Ecology and Evolutionary Biology Lab (1)**

Laboratory to accompany BIOL 265. (3 hours laboratory)

*Corequisite: BIOL 265; or consent of the instructor.*

*Recommended Preparation: ICS 101 or ICS 105B-E; or familiarity with spreadsheets, word processing, and Internet browsers.*

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate ecological and evolutionary phenomena.
- Apply the concepts learned in BIOL 265 to an experimental and hands-on observational setting.
- Apply standard analytical procedures for the study of evolution and ecology. These include the following areas of study: experimental design and set-up; descriptive statistics and hypothesis testing; age structure of a natural population; sampling and describing population attributes; sampling, describing, and quantifying the flora, fauna, and relevant abiotic characteristics of a terrestrial habitat; plant competition; optimal foraging theory; sampling and describing community characteristics and functions; primary productivity; natural selection; colonization and adaptive radiation of Hawaiian flora and fauna; taxonomy, systematics, and phylogenetics.
- Collect, reduce, and interpret ecological and evolutionary data.
- Prepare written objective reports describing and interpreting experimental and observational results.

### **BIOL 275 Cell and Molecular Biology (3)**

Integrated cell and molecular biology for life science majors. Modern advances in recombinant DNA technology. (3 hours lecture)

*Prerequisite: "C" or better in BIOL 171/171L and CHEM 272/272L or consent of instructor.*

*Corequisite: BIOL 275L or consent of instructor.*

DB

The student learning outcomes are:

- Describe the principles of cytology including cell organization, structures and functions.

- Describe cell biochemistry including macromolecules of the cells, enzymes, membrane transport, cell signaling, and energy flow in cells during respiration and photosynthesis.
- Describe the principles of genetics including DNA replication, protein synthesis, mitosis, meiosis, genetic recombination and gene expression.

### **BIOL 275L Cell and Molecular Biology Lab (1)**

Laboratory for cell and molecular biology. (3 hours laboratory)

*Corequisite: BIOL 275; or consent of the instructor.*

*Recommended Preparation: ICS 101 or ICS 105B-E, calculus or algebra.*

DY

The student learning outcomes are:

- Operate equipment used in cell and molecular biology laboratory.
- Conduct experiments including DNA/RNA/protein extraction and electrophoresis, enzyme kinetics, ELISA, RFLP, PCR, gene expression.
- Produce lab reports using the standard scientific format.

## **Botany**

### **BOT 101 General Botany (4)**

Introduction to plant structure, function, reproduction, and evolution; plants in relation to the environment and human activities. Lecture/laboratory/field trip course. (3 hours lecture, 3 hours laboratory)

*Recommended Preparation: High school biology.*

DB DY

The student learning outcomes are:

- Discuss basic concepts of plant morphology, anatomy, physiology, cytology, taxonomy and genetics.
- Discuss life cycles of division in Thallophyta, Bryophyta, Pteridophyta and Spermatophyta.
- Discuss interrelationship between plants and animals, and socio-economic importance of plants on humans.
- Discuss plant biotechnology.
- Operate dissecting and compound microscopes.
- Perform traditional and in vitro propagations.

### **BOT 105 Ethnobotany (3)**

The scientific study of the interaction between human culture and plants, including the interrelationship of botany, socio-economics, belief systems and history that have shaped the cultural uses of plants in Hawai'i, as well as Asia or the Pacific. Lecture/field trip course with service-learning option. (3 hours lecture)

DS

The student learning outcomes are:

- Identify plants of major importance in various aspects of Hawaiian, Asian and Pacific Island cultures.
- Utilize the plants for food, medicine, and other material goods.

### **BOT 130 Plants in the Hawaiian Environment (4)**

Introduction to the evolution of plant communities and species of Hawaiian ecosystems; ecological interactions; observations,

## Course Descriptions

identification and systematics of native and introduced flora. Lecture/laboratory/field trip course. (3 hours lecture, 3 hours laboratory)

DB DY

The student learning outcomes are:

- Discuss geological history of the Hawaiian Islands and natural history of plants in Hawai'i.
- Discuss the arrival, establishment, major evolutionary trends and adaptive radiation of some of the surviving native species.
- Discuss natural and human-mediated changes in the ecosystems, plant succession, and interaction between native and introduced species of plants.
- Discuss botanical terminology for use in identifying native Hawaiian plants.

### **BOT 160 Identification of Tropical Plants (3)**

Nontechnical course in identification of common plants of tropics, including native and introduced flora. (3 hours lecture)

DB

The student learning outcomes are:

- Operate dissecting microscopes.
- Recognize unique vegetative and generative characteristics of plant families.
- Use manuals, flora and monographs to identify plants.
- Prepare herbaria.

### **BOT 205 Ethnobotanical Pharmacognosy (4)**

A study of medicinal plants of Hawai'i, their characteristics, plant extraction, isolation and identification of their chemical constituents for possible uses in pharmaceuticals or in their natural state, and bioproduct manufacturing. This course is designed to train students for careers in plant and medical biotechnology. Lecture and laboratory/field trip course. (3 hours lecture, 3 hours laboratory)

*Prerequisite:* Credit for or registration in any of these courses: BOT 101, BOT 105, BOT 130, MICR 130, MICR 140, BIOL 172/172L, CHEM 152/152L or consent of instructor.

*Recommended Preparation:* High school biology, chemistry and math.

DB DY

The student learning outcomes are:

- Discuss theories and principles in the study of medicinal and nutritious plants.
- Discuss ethics, intellectual property rights and conservation of traditional knowledge.
- Perform Laboratory activities: plant extraction, distillation, bioassay tests, analysis of chemical constituents for possible uses in pharmaceuticals and nutraceutical products.
- Produce lab reports using the standard scientific format.

### **BOT 210 Phytobiotechnology (4)**

Introduction to practical aspects of Plant Biotechnology. Topics include micropropagation techniques, such as plant tissue, cell and protoplast cultures: DNA-based technologies, such as DNA extraction, DNA sequencing, PCR; and methods of plant genetic engineering. This course is designed to train students for careers in advanced agriculture technology and industry. (3 hours lecture, 3 hours laboratory)

*Prerequisite:* Credit for or registration in BOT 101, or AG 152, or MICR

130 and MICR 140, or BIOL 171 and 171L. Placement into MATH 100 or higher.

*Recommended Preparation:* High school biology or chemistry, MATH 24.

DB DY

The student learning outcomes are:

- Apply the principles of genetics.
- Discuss and perform experiments including plant/bacterial/human DNA/protein electrophoresis, Southern and Western blots, plant genetic engineering using biolistic bombardment and bacterial gene transformation.
- Apply bioinformatics and DNA sequencing.
- Discuss bioethical issues, risks and benefits of biotechnology.
- Produce lab reports using the standard scientific format.

## Business

### **BUS 120 Principles of Business (3)**

Surveys the fundamentals of the American business enterprise. Examines the foundations and responsibilities of accounting, business, management, finance, marketing, and the business environment. (3 hours lecture)

*Recommended Preparation:* Credit for ENG 21 and ENG 22, or ENG 23 or higher.

The student learning outcomes are:

- Demonstrate qualitative understanding of the impact of external factors on business decisions relative to the accomplishment of the mission and objectives of an organization.
- Demonstrate qualitative understanding of various forms of business ownership to determine their appropriateness relative to an organization's resources, goals, and objectives.
- Demonstrate qualitative understanding of various business functions and practices and their impact on the successful operation of a business.
- Demonstrate qualitative understanding of the impact of business decisions on the external environment.

### **BUS 122 Introduction to Entrepreneurship (3)**

This course covers the basic economic and business principles regarding small-scale business enterprises. Focusing on the creation of a business plan, topics include researching and evaluating resources, planning, marketing, cultivating money resources, and understanding key concepts in law, budgeting, financial statements, and business documentation. (3 hours lecture)

*Recommended Preparation:* BUS 120 and placement into ENG 100.

The student learning outcomes are:

- Develop a comprehensive business plan for a future business enterprise.
- Apply fundamental economic, financial, and organizational principles that govern the operation of business.
- Work collaboratively in a group setting to cultivate entrepreneurship and develop solutions to economic issues.

### **BUS 122B Introduction to Entrepreneurship: Sustainable Agriculture (3)**

This course is a specialized section of Introduction to Entrepreneurship that focuses on sustainable agriculture. The course will cover the

basic economic and business principles regarding small-scale business enterprises connected to agriculture, with a particular focus on sustainable agriculture in Hawai'i. With a focus on the creation of a business plan, topics include researching and evaluating resources, planning, marketing, cultivating money resources, and understanding key concepts in law, budgeting, financial statements, and business documentation. (3 hours lecture)

*Recommended Preparation: BUS 120 and placement into ENG 100.*

The student learning outcomes are:

- Develop a comprehensive business plan for a future business enterprise.
- Apply fundamental economic, financial, and organizational principles to the operation of a sustainable agriculture business.
- Work collaboratively in a group setting to cultivate entrepreneurship and develop solutions to economic issues.
- Apply general entrepreneurial concepts to sustainable agriculture practices in Hawai'i.

## Business Law

### **BLAW 200 Legal Environment of Business (3)**

Introduction to the legal environment of business operations with particular attention to business law and ethics and to principles of law relating to contracts, agency, partnerships, and corporations. (3 hours lecture)

*Recommended Preparation: A grade of C or higher in ENG 100.*

The student learning outcomes are:

- Summarize the American system of justice and jurisprudence, and its evolution, and effectively use its concepts, terminology, and procedures.
- Explain how laws are made, implemented, interpreted and enforced by the three branches of government at the national, state and local levels.
- Examine, explain and apply basic principles of law, including contracts, torts, real and personal property, business organizations, agency, employment, products and consumer protection, environmental law, and anti-trust, etc.
- Discuss how business and legal disputes arise and are avoided and/or resolved, including informal processes and alternative dispute resolution.
- Participate in ethical decision-making, taking into account various legal, business and ethical approaches, philosophies and codes.

## Business Technology

### **BUSN 121 Introduction to Word Processing (3)**

The course covers proper keyboarding techniques; word processing concepts (Microsoft Word); and document formatting of letters, memos, tables, reports, and email. Basic file management and operating system functions are included. Keyboarding speed and accuracy are emphasized. (3 hours lecture)

*Recommended Preparation: Credit for ENG 21 or ENG 23 or higher.*

The student learning outcomes are:

- Key by touch when inputting information (alphabetic, numeric, and symbolic), using proper techniques with accuracy.
- Use the computer's operating system to manage documents

and folders.

- Produce business documents using word processing software. Produce basic mailable business documents in a timely manner using word processing software.

### **BUSN 164 Career Success (3)**

Presents concepts and theories relating to workplace behavior; managing one's attitude and relationships for workplace effectiveness. (3 hours lecture)

*Prerequisite: Placement into ENG 100*

The student learning outcomes are:

- Model professional behavior acceptable in a business setting.
- Evaluate and apply decision-making components for successful problem solving.
- Analyze business situations and prescribe appropriate solutions to resolve conflicts.
- Evaluate life-long learning resources available and determine appropriate times to use them.

### **BUSN 193V Cooperative Education (1-4)**

Cooperative Education provides practical career-related work experience through a program used nationally in colleges and universities to apply classroom knowledge and to develop job competencies. Full-time or part-time work in private and public sectors of the business, government and industrial communities is utilized for this program. The number of credits earned depends upon the number of hours spent at the job station during the semester. To receive credit for cooperative education, the student must complete a minimum of 60 work hours per credit and participate in class activities. Four credits may be applied to the AA degree.

*Prerequisite: Instructor approval.*

The student learning outcomes are:

- Perform duties at a worksite according to industry standards.
- Evaluate career choice based on personal traits, industry expectations, and work experience.

## Chemistry

### **CHEM 100 Chemistry and Society (3)**

Introduction to chemistry for non-science majors. Discussion of basic chemistry concepts and their application to everyday life. Provides a survey of basic concepts and applications of chemistry with emphasis on the role of chemistry in the real world. This is suitable for students who have little or no background in chemistry and serves to fulfill a general education physical science core course for the nonscience major or as a preparatory course for CHEM 151 or BIOC 141. (3 hours lecture)

DP

The student learning outcomes are:

- Describe the relationship between properties and structure of matter.
- Name chemicals, balance chemical and nuclear equations.
- Solve problems involving mole and mass ratios in chemical reactions.
- Identify the types of chemical reactions (i.e. acid-base, redox, nuclear) and their applications to everyday lives.

## Course Descriptions

- Explain the chemistry of household chemicals, and the composition of air and water.
- Apply knowledge of a specific chemical concept to a current environmental, health, industrial, or technological issue or condition by writing a short research paper.

### **CHEM 100L Chemistry and Society Laboratory (1)**

Experiments in everyday chemistry. (3 hours laboratory)

*Prerequisite:* Credit for or registration in CHEM 100.

DY

The student learning outcomes are:

- Identify/locate laboratory safety equipment and apply laboratory safety procedures.
- Construct molecular models to determine molecular shape and properties.
- Assemble apparatus to perform common laboratory techniques to verify fundamental chemistry principles in everyday life.
- Make and record accurate observations and precise quantitative measurements.
- Synthesize conclusions based on observations and data in a formal laboratory report.
- Identify sources of error in laboratory experiments.

### **CHEM 151 Elementary Survey of Chemistry (3)**

Provides the student with an adequate background in the fundamentals of chemistry. Covers the basic language and quantitative relationships of chemistry, including atomic structure, chemical bonding, structure-property relationships, chemical reactions. Prerequisite to CHEM 152 for majors in medical technology and nursing and other allied health and science-related fields, or can be taken as a preparatory course for CHEM 161. (3 hours lecture)

*Prerequisite:* Credit in MATH 24, 25, 26, 28, 29, 75X or higher, and placement in ENG 23 or higher.

DP

The student learning outcomes are:

- Predict properties of chemical elements based on their atomic structure and their location in the Periodic Table.
- Name chemical compounds, balance chemical and nuclear reactions.
- Predict properties of chemical compounds based on chemical bonding, molecular shapes, and polarity.
- Calculate mass relationships in chemical reactions and the quantity of matter in gaseous chemicals and chemical solutions.
- Predict the products of common chemical reactions.
- Apply knowledge of chemical concepts to a current environmental, health, industrial, or technological issue or condition by writing a short research paper.

### **CHEM 151L Elementary Survey of Chemistry Laboratory (1)**

Experiments introducing laboratory techniques and illustrating chemical principles; supplemented by films, demonstrations, and problem sessions. (3 hours laboratory)

*Prerequisite:* Credit for or registration in CHEM 151.

DY

The student learning outcomes are:

- Identify and locate laboratory safety equipment and apply laboratory safety procedures.
- Assemble apparatus to perform common laboratory techniques to verify basic chemistry laws on gases, chemical stoichiometry, chemical equilibrium and others.
- Use molecular models and technology to investigate chemistry concepts.
- Make and record accurate observations, precise measurements and calculations applying rules on significant figures.
- Develop hypotheses, use critical thinking to process results and identify sources of error.
- Apply and articulate the scientific method by preparing a lab report using the standard scientific format.

### **CHEM 152 Survey of Organic and Bioorganic Chemistry (3)**

Structure, nomenclature, properties and reactions of organic compounds will be studied with emphasis on those compounds of practical importance in life science and related fields. (3 hours lecture)

*Prerequisite:* Credit for CHEM 151 or equivalent or consent of instructor.

DP

The student learning outcomes are:

- Construct molecular models and use these to describe chemical structure, geometry and physical properties.
- Identify, classify and name organic and biochemical compounds.
- Predict products of fundamental organic reactions.
- Use the vocabulary on organic chemicals and reactions in metabolism and other biochemical applications.
- Explain the role of enzymes in metabolism.
- Apply knowledge of biochemistry concepts to discuss the genetic cause of a metabolic disorder in a short research paper..

### **CHEM 161 General Chemistry I (3)**

Basic principles of inorganic chemistry with an emphasis on problem solving. First course of a two-course sequence designed to meet the one-year General Chemistry requirement for pre-med, science and engineering majors. Topics include chemical calculations, electronic structure, chemical bonding, states of matter and solutions. (3 hours lecture)

*Prerequisite:* A grade of "C" or better in Math 103 or higher, or placement into Math 135 or consent of instructor.

*Corequisite:* Registration in CHEM 161L.

*Recommended Preparation:* Student should have taken high school chemistry, CHEM 100, or CHEM 151.

DP

The student learning outcomes are:

- Use the mole concept in solving stoichiometry problems involving solids, liquids, gases and solutions.
- Balance chemical equations, classify reactions, identify and analyze the role of the chemicals involved in chemical reactions.
- Predict the behavior of gases while undergoing changes in volume, pressure, temperature and quantity.
- Manipulate thermochemical equations and calculate the amount of energy involved in chemical reactions.
- Predict physical and chemical properties of elements based on



electronic structure and location in the Periodic Table.

- Predict physical and chemical properties of compounds based on chemical bonding, geometry and intermolecular interactions.

### **CHEM 161L General Chemistry Laboratory I (1)**

Laboratory experiments illustrating fundamental principles of chemistry. (3 hours laboratory)

*Prerequisite:* Credit for or registration in CHEM 161.

DY

The student learning outcomes are:

- Apply laboratory safety procedures and respond to hazards.
- Use molecular and crystal models, perform common laboratory techniques competently and computer-based experiments to verify chemistry laws on stoichiometry, thermochemistry, behavior of gases and liquids.
- Apply and articulate the scientific method by preparing lab reports using the standard scientific format. Express in writing core chemistry principles, results of experiments and do critical thinking by synthesizing conclusions based on observations and data.
- Make and record precise measurements, calculate results using significant figures, standard deviations and identify sources of error in laboratory experiments.
- Use computer competently, word-processing, spreadsheet and graphing.
- Prepare chemical solutions, perform dilutions, calculate solution concentrations and generate a calibration curve.

### **CHEM 162 General Chemistry II (3)**

Second course of a two-course sequence designed to meet the one-year General Chemistry requirement for pre-med, science and engineering majors. Topics include thermochemistry, kinetics, acid-base equilibrium, solubility equilibrium and electrochemistry. Emphasis on problem solving. (3 hours lecture)

*Prerequisite:* A grade of "C" or better in CHEM 161, credit for or registration in MATH 135, or consent of instructor.

*Corequisite:* CHEM 162L.

DP

The student learning outcomes are:

- Predict properties of pure substances using phase diagrams.
- Predict properties (boiling point, melting point, osmotic pressure, vapor pressure) of solutions based on concentration.
- Determine reaction rate law and calculate rate constants and half-life based on experimental data.
- Calculate the equilibrium concentration of chemicals in solution involved in precipitation, and acid-base and reactions.
- Predict spontaneous reactions based on enthalpy and entropy considerations.
- Determine the electrochemical potential of redox reactions.

### **CHEM 162L General Chemistry Laboratory II (1)**

Laboratory experiments illustrating fundamental principles of chemistry. (3 hours laboratory)

*Prerequisite:* Credit for or registration in CHEM 162.

DY

The student learning outcomes are:

- Develop an appreciation for the methods of scientific inquiry through computer-based laboratory experiments showing real-time data.
- Apply knowledge to determine molar mass of unknown substance using freezing point depression data of solution.
- Calculate chemical reaction rate and constant using graphing analysis.
- Predict the effects of concentration and temperature changes on equilibrium mixtures using Le Chatelier's principle.
- Determine whether equilibrium is established and calculate equilibrium concentrations/constants and cell potentials.
- Apply and articulate the scientific method by preparing lab reports using the standard scientific format. Express in writing core chemistry principles, results of experiments and do critical thinking by synthesizing conclusions based on observations and data.

### **CHEM 272 Organic Chemistry I (3)**

This is the first semester course in organic chemistry intended for science majors. Topics to be covered include structure, properties, nomenclature, reactions, reaction mechanisms, stereochemistry and spectroscopy of alkanes, alkenes, alkynes, alkyl halides, alcohols and their applications to biology. (3 hours lecture)

*Prerequisite:* A grade of "C" or better in CHEM 162 or consent of instructor.

DP

The student learning outcomes are:

- Discuss the bonding and structure of organic compounds.
- Name various organic compounds using IUPAC rules and diagram their structures.
- Use stereochemical concepts in understanding physical and chemical properties.
- Identify chemical structure and physical chemical properties.
- Explain the relationship between structure and physical chemical properties.
- Predict reaction products, deduce starting materials and diagram reaction mechanism.
- Cite applications and important role of organic reactions in biology.

### **CHEM 272L Organic Chemistry Laboratory I (2)**

Laboratory principles of Organic Chemistry I, the first semester course in organic chemistry intended for science majors. Topics to be covered include structure, properties, nomenclature, reactions, reaction mechanisms, stereochemistry and spectroscopy of alkanes, alkenes, alkynes, alkyl halides, alcohols and their applications to biology. (5 hours laboratory)

*Prerequisite:* A grade of "C" or better or registration in CHEM 272 or consent of instructor.

DY

The student learning outcomes are:

- Perform and develop skills in organic chemistry laboratory methods and techniques used in separation and purification.
- Determine the chemical identity of some organic chemicals through their properties.

## Course Descriptions

- Keep complete and accurate records, manipulate data for mathematical calculations, including reactant recovery and percent yield.
- Apply laboratory safety and safety disposal of waste procedures that can be used in all future laboratory experiences.
- Gain experience in conducting synthesis and functional group conversion.
- Interpret experimental data and formulate conclusions as evidenced in laboratory reports.

### **CHEM 273 Organic Chemistry II (3)**

This is the second semester course in organic chemistry intended for science majors. Topics to be covered include structure, properties, nomenclature, reactions, reaction mechanisms, stereochemistry and spectroscopy of conjugated systems, aromatic compounds, aldehydes, ketones, carboxylic acids and their derivatives, enols, enolates and their applications to biology. (3 hours lecture)  
*Prerequisite: A grade of "C" or better in CHEM 272 or consent of instructor.*  
DP

The student learning outcomes are:

- Discuss the bonding and structure of organic compounds.
- Name various organic compounds using the IUPAC rules and diagram their structures.
- Use stereochemical concepts in understanding physical and chemical properties of organic compounds.
- Identify chemical structure based on spectroscopic data.
- Explain the relationship between structure and physical and chemical properties of organic compounds.
- Predict reaction products, deduce starting materials and diagram reaction mechanisms.
- Cite applications and the important role of organic reactions in biology.

### **CHEM 273L Organic Chemistry II Lab (1)**

Laboratory principles of Organic Chemistry II, the second semester course in organic chemistry intended for science majors. Topics to be covered include techniques, synthesis, qualitative organic analysis and applications of spectroscopy. (4 hours laboratory)

*Prerequisite: A grade of "C" or better in CHEM 272L and a grade of "C" or better or registration in CHEM 273 or consent of instructor.*

DY

The student learning outcomes are:

- Perform and develop skills in organic chemistry laboratory methods and techniques used in separation and purification.
- Determine the chemical identity of some organic chemicals through their properties.
- Keep complete and accurate records, manipulate data for mathematical calculations, including reactant recovery and percent yield.
- Apply laboratory safety procedures, including safe disposal of waste.
- Gain experience in organic synthesis and functional group conversion.
- Interpret experimental data and formulate conclusions as evidenced in laboratory reports.

## Civil Engineering

### **CE 270 Applied Mechanics I (3)**

This course is a study of equilibrium of rigid bodies under the action of forces and the application of the principles of mechanics to solve static problems in engineering. (3 hours lecture)

*Prerequisite: Physics 170; credit for or registration in Math 231 or consent of instructor*

DP

The student learning outcomes are:

- Solve problems involving forces, resultant and static equilibrium and their application to rigid bodies.
- Analyze equilibrium of rigid bodies in two and three dimensions.
- Solve problems involving center of gravity, centroids, couples, and moments of inertia.
- Analyze engineering structures subjected to concentrated loads, distributed loads, and frictional forces.
- Utilize abstract thinking and analytical reasoning in the analysis of word problems dealing with mechanical structures.
- Apply calculation techniques to dynamic problems in engineering.

## Community Health Work

### **CHW 101 Community Health Worker Fundamentals**

Identifies the roles that Community Health Workers play in Hawai'i and the broader public health system and introduces the attitudes, skills and knowledge of the profession. (3 hours lecture)

*Prerequisite: Placement into ENG 100X.*

The student learning outcomes are:

- Develop communication and interpersonal skills through interactions with fellow students, clients, and professionals in the community.
- Develop professional skills and identify best practices for use with various populations and in diverse human service settings.
- Use critical thinking, problem solving, and research skills to evaluate the social conditions of vulnerable populations and identify potential advocacy strategies.

### **CHW 140 Introduction to Counseling & Interviewing**

Offers a basic introduction to counseling theory and practice for those interested in working in helping professions. Provides opportunities to practice skills through role-playing. (3 hours lecture)

*Prerequisite: Placement into ENG 100X.*

*Recommended Preparation: Credit for CHW 101*

The student learning outcomes are:

- Use critical thinking and problem solving skills to improve personal wellbeing and enhance professional potential.
- Demonstrate attitudes, skills and knowledge of best practice strategies appropriate to a variety of populations in diverse human service settings.
- Identify vulnerable populations and the social conditions that contribute to their vulnerability, and consider advocacy strategies to help alleviate those conditions.
- Engage in civic activities that assist in the development of self-awareness and influence the development of professionalism.

### Creative Media

#### **CM 120 Introduction to Digital Video Journalism (3)**

Students will develop basic skills in video production and apply them to creating journalistic stories. (Cross-listed as JOUR 120). (2 hours lecture, 3 hours lab)

DA

The student learning outcomes are:

- Demonstrate basic knowledge and skills of digital video production including operating a digital video camera and sound recording kit.
- Demonstrate the ability to edit a video project in a digital non-linear system.
- Develop effective storytelling skills through the use of basic cinematography concepts—composition, light and movement.
- Produce videos independently or in groups that meet journalistic standards and ethics.

#### **CM 142 Introduction to Video Game Design (3)**

This course offers an introduction to the fundamentals of video game and application design, development, and deployment through project-based challenges that culminate in a publishable application. (2 hours lecture, 3 hours lab)

The student learning outcomes are:

- Design and execute a coding project for publication on the public iOS/Android/PC market.
- Identify and apply good industry practices for project and time management as well as technical skill in completing coding projects.
- Communicate and collaborate in a group professional team environment.

#### **CM 220 Intermediate Digital Video Journalism (3)**

Students will develop intermediate skills in video production and apply them to creating journalistic stories for publication on the web and other distribution platforms. Repeatable for up to 6 credits. (Cross-listed as JOUR 220.). (2 hours lecture, 3 hours lab)

*Prerequisite: Credit for CM 120 or consent of instructor.*

DA

The student learning outcomes are:

- Produce various news videos and short documentaries independently or in groups that meet professional journalistic standards and ethics.
- Generate story ideas; research, gather and organize information; follow through on assignments; and meet deadlines.
- Develop basic knowledge and skills of digital video production including cinematography, sound and editing.
- Critically analyze news videos and documentaries produced by the mass media.

### Dance

#### **DNCE 121 Beginning Ballet (3)**

Introduction to classical ballet technique. May be repeated up to 9 credits. (3 hours lecture.)

DA

The student learning outcomes are:

- Correctly define ballet terminology. Execute proper ballet technique. Perform ballet routines.

#### **DNCE 122 Continuing Beginning Ballet (3)**

Continuation of beginning classical ballet technique. May be repeated up to 9 credits. (3 Hours Lecture.)

*Prerequisite: Grade of "C" or better in DNCE 121 or consent of instructor.*

DA

The student learning outcomes are:

- Demonstrate correct usage of ballet terminology and core concepts
- Execute proper ballet technique
- Perform ballet routines

#### **DNCE 131 Beginning Modern Dance (3)**

Introduction to modern dance technique. May be repeated up to 9 credits. (3 hours lecture.)

DA

The student learning outcomes are:

- Correctly define modern dance terminology
- Demonstrate kinesthetic proficiency in modern dance technique through performance
- Demonstrate conceptual understanding of contemporary modern dance technique

#### **DNCE 132 Continuing Beginning Modern Dance (3)**

Continuation of beginning modern dance technique. May be repeated up to 9 credits. (3 hours lecture.)

*Prerequisite: Grade of "C" or better in DNCE 131 or Instructor consent.*

DA

The student learning outcomes are:

- Discuss concepts in modern dance utilizing proper terminology
- Develop kinesthetic proficiency in contemporary modern dance technique
- Perform modern dance choreography

#### **DNCE 221 Low Intermediate Ballet (3)**

Low intermediate ballet technique. May be repeated up to 9 credits. (3 hours lecture.)

*Prerequisite: Grade of "C" or better in DNCE 122 or instructor's consent.*

DA

The student learning outcomes are:

- Discuss Core Concepts in Ballet Using Proper Ballet Terminology
- Execute Intermediate Level Ballet Techniques
- Perform Intermediate Level Choreography

#### **DNCE 231 Low Intermediate Modern Dance (3)**

Low intermediate modern dance technique. May be repeated up to 9 credits. (3 hours lecture.)

*Prerequisite: Grade of "C" or better in DNCE 132 or Instructor consent.*

DA

The student learning outcomes are:

- Discuss concepts in modern dance utilizing proper terminology

## Course Descriptions

- Develop kinesthetic proficiency in contemporary modern dance technique
- Perform modern dance choreography

## Economics

### **ECON 130 Principles of Economics (Microeconomics) (3)**

Study of how individuals make decisions which affect their income and wealth; how firms make decisions which affect profits and production. Relationship to demand, supply and prices of goods, and natural resources. (3 hours lecture)

DS

The student learning outcomes are:

- Translate important microeconomic terms and theories into various forms. Skills needed to achieve this outcome: Writing ability, ability to translate economic terms into their own words and mathematical ability, ability to translate and interpret economic theories in a two dimensional graphical space.
- Explain the basic underpinnings of consumer and producer behavior. Skills needed to achieve this outcome: Research skills, Writing skills, Ability to formulate a hypothesis, and Ability to use the scientific method.

### **ECON 131 Principles of Economics (Macroeconomics) (3)**

Study of the economic forces which determine a country's income, employment, and prices. Roles of consumers, businesses, banks, and governments are explored. (3 hours lecture)

DS

The student learning outcomes are:

- Translate important macroeconomic terms and theories into various forms. Skills needed to achieve this outcome: Writing ability, ability to translate economic terms into their own words and mathematical ability, ability to translate and interpret economic theories in a two dimensional graphical space.
- Identify, explore and analyze macroeconomic concepts using economic analysis and research skills. Skills needed to achieve this outcome: Research skills, Writing skills, Ability to formulate a thesis statement, Ability to back up arguments using published research and to cite that research appropriately.

### **ECON 220 Introduction to Environmental Economics (3)**

Environmental Economics uses the basic tools of economic analysis to focus on issues that pertain to the natural environment and its resources. The central theme is that there are competing demands for our limited natural resources necessitating that difficult choices be made regarding how those resources are used. Topics include global warming, Hawai'i's environment and other current environmental issues as time permits. (3 hours lecture)

*Prerequisite: Credit for Economics 130 or 131 and a course in Environmental Science.*

DS

The student learning outcomes are:

- Explain how prices allocate resources in a free market economy, especially as related to the environment.
- Evaluate the benefits and costs of environmental clean-up
- Contrast free market solutions to environmental clean-up vs. competing views.

- Evaluate outcomes and government policy responses in markets with negative externalities.

## Electrical Engineering

### **EE 160 Programming for Engineers (4)**

Introductory course on computer programming and modern computing environments with an emphasis on algorithm and program design, implementation and debugging. Designed for engineering students, this course includes a hands-on laboratory to develop and practice programming skills. (3 hours lecture and 3 hours laboratory)

*Prerequisite: Credit for or registration in Math 140 or consent of instructor*

*Recommended Preparation: ICS 101* The student learning outcomes are:

- explain the steps involved in the programming process.
- solve simple problems and express those solutions as algorithms.
- use the fundamental techniques of selection, looping, assignment, input, and output to describe the steps the computer takes to solve a problem.
- write algorithms and code in a top-down manner.
- work with arrays in searching and sorting applications.
- work with structures and unions types.
- write, test, and debug small programs.
- write functions and use pointers.
- work with characters and strings.
- work in text based environment like UNIX.
- interface with text base using a GUI interface.

### **EE 211 Basic Circuit Analysis I (4)**

This is an introductory course covering linear passive circuits, time domain analysis, transient and steady state responses, phasors, impedance and admittance, power and energy, frequency responses, and resonance. (3 hours lecture, 3 hours laboratory)

*Prerequisite: Credit for or registration in MATH 231 or higher, credit for or registration in PHYS 272, or consent of instructor.*

DP DY

The student learning outcomes are:

- Analyze and assemble basic circuits.
- Describe and analyze the basic functionality of the components of a basic circuit.
- Describe the rudiments of electric power production.

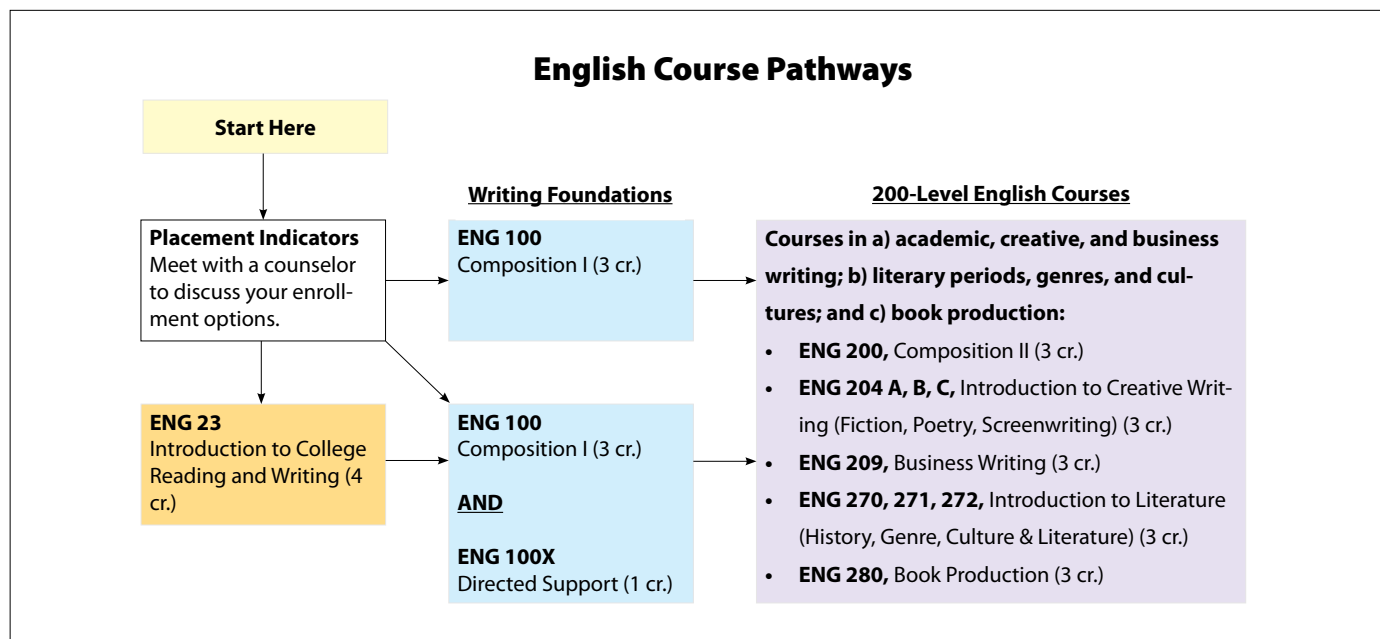
## English

### **ENG 23 Introduction to College Reading and Writing (4)**

This course prepares students for college-level reading and writing with practice in the writing process, instruction in grammar and mechanics, emphasis on effective paragraphs and essays, introduction to research techniques, and practice in vocabulary development and reading comprehension. (3 hours lecture, 3 hours laboratory)

*Prerequisite: Placement in ENG 23, grade of "C" or better in ENG 18 or ENG 20, or approval of designated Language Arts representative.*





The student learning outcomes are:

- Effectively use a multi-step writing process that includes drafting, revising, and editing; respond constructively to written and oral feedback.
- Write compositions that have a main point and supporting ideas developed with specific, logically organized details.
- Integrate source material according to academic conventions.
- Proofread for effective grammar, word choice, punctuation, and spelling.
- Effectively use entry-level college vocabulary.
- Comprehend various types of entry-level written and visual college materials.
- Demonstrate application of varied reading strategies to entry-level college texts.

## ENG 100 Composition I (3)

This college-level composition course promotes critical reading, the writing process, rhetorical principles, research strategies, and the documentation of sources. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in ENG 22, OR placement into ENG 100, OR grade of "C" or better in ENG 23 and corequisite enrollment in ENG 100X, OR approval of designated Language Arts representative.  
FW

The student learning outcomes are:

- Write complex and well-reasoned compositions in language, style, and structure appropriate to particular purposes and audiences.
- Engage in a writing process that includes exploring ideas, considering multiple points of view, developing and supporting a thesis, revising with the help of peer and instructor feedback, editing, and proofreading.
- Find, evaluate, integrate, and properly document information from libraries, the internet, and other sources, with an eye for reliability, bias, and relevance.
- Read for main points, perspective, and purpose, and analyze

the effectiveness of a variety of rhetorical strategies in order to integrate that knowledge into their writing.

## ENG 100X Directed Support (1)

This course increases students' engagement with English 100 course content: college-level composition, critical reading, the writing process, rhetorical principles, research strategies, and the documentation of sources. (1 hour studio)

*Prerequisite:* Grade of "C" or better in ENG 22 or ENG 23 or placement into ENG 100X or approval of designated Language Arts representative.

*Corequisite:* Co-requisite: ENG 100

The student learning outcomes are:

- Write complex and well-reasoned compositions in language, style, and structure appropriate to particular purposes and audiences
- Engage in a writing process that includes exploring ideas, considering multiple points of view, developing and supporting a thesis, revising with the help of peer and instructor feedback, editing, and proofreading
- Find, evaluate, integrate, and properly document information from libraries, the internet, and other sources, with an eye for reliability, bias, and relevance
- Read for main points, perspective, and purpose, and analyze the effectiveness of a variety of rhetorical strategies in order to integrate that knowledge into their writing

## ENG 200 Composition II (3)

A writing intensive composition course that furthers the study of rhetorical, conceptual, and stylistic demands of writing. Through a variety of assignments, each essay students write will build on the next one, culminating in a final argumentative research paper into which students will incorporate the knowledge they have gained through the writing and research performed during the semester. (3 hours lecture)

## Course Descriptions

*Prerequisite: Grade of "C" or better in ENG 100, or consent of instructor.*

*Recommended Preparation: Students should possess a strong foundation in grammar and punctuation; ideally, students will know MLA and/or APA writing styles.*

The student learning outcomes are:

- Summarize and organize appropriate primary and secondary sources.
- Analyze written arguments and resolutions using Aristotle's rhetorical triangle.
- Evaluate the validity and relevance in a given argument.
- Employ MLA and APA documentation styles in a written research project.

### **ENG 204A Introduction to Creative Writing (Fiction) (3)**

English 204A Introduction to Creative Writing (fiction) introduces students to the basic practices and principles involved in the writing and publication of short stories and novels. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ENG 100, or consent of instructor.*

DA

The student learning outcomes are:

- View the world as a writer, with an eye for detail and an ear for dialogue.
- Exercise the imagination as a tool for creation.
- Write short stories or novels.
- Submit writing for publication.
- Gain and deliver useful writing feedback.

### **ENG 204B Introduction to Creative Writing (Poetry) (3)**

English 204B Introduction to Creative Writing (Poetry) introduces students to the basic practices and principles involved in the writing and publication of poems. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ENG 100, or consent of instructor.*

*Recommended Preparation: Students should possess a strong foundational knowledge of grammar, word usage, and punctuation. Additionally, students must be able to accept constructive criticism from peers and the instructor.*

DA

The student learning outcomes are:

- Create original poems that reflect a skillful use of literary devices, forms, and conventions.
- Analyze poems written by peers and published authors.
- Propose and employ feedback in the writing workshop model.
- Evaluate and submit poems for publication.

### **ENG 204C Introduction to Creative Writing (Screenwriting) (3)**

English 204C Introduction to Creative Writing (Screenwriting) introduces students to the basic practices and principles of screenwriting. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ENG 100, or consent of instructor.*

*Recommended Preparation: Students should possess a strong foundational knowledge of grammar, word usage, and punctuation. Additionally, students must be able to accept constructive criticism from peers and the instructor.*

DA

The student learning outcomes are:

- Create original short screenplays that include screenwriting format, devices, and conventions.
- Propose and employ feedback in the writing workshop model.
- Enter screenplays for local and/or national contests and/or productions.

### **ENG 209 Business Writing (3)**

A study of business and managerial writing; practice in writing letters, memos, and reports, including a report requiring research and documentation. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ENG 100.*

The student learning outcomes are:

- Understand the nature and functions of business and managerial writing.
- Apply the principles of effective business writing in composing business messages.
- Adapt a business message to its context, audience, and purpose.
- Prepare business reports, including a research report involving gathering and analyzing information, drawing conclusions, making recommendations, and documenting sources.
- Proofread and edit business writing for grammatical, spelling, punctuation and mechanical errors.
- Prepare and make effective use of presentation software.
- Compose an effective resume and employment letters.

### **ENG 270 Introduction to Literature: Literary History (3)**

This course introduces students to the study of significant works of literature in selected historical periods. Emphasis is on discussion of and writing about characteristics and themes of the works. A student may enroll in this course more than one time (for different historical periods); however, only three credits will be applied toward degree. (3 hours lecture)

*Prerequisite: A grade of "C" or better in ENG 100.*

DL

The student learning outcomes are:

- Use concepts and terminology particular to literary study to analyze and interpret imaginative literary works orally and in writing.
- Respond to a work of literature as an expression of a culture's values and compare those values with the student's own.
- Enjoy a more creative, enlightened, and fulfilled life through an appreciation of literature's social, cultural, political, and philosophical themes and techniques.
- Exhibit knowledge about selected writers and their characteristic themes and techniques.

### **ENG 271 Introduction to Literature: Genre (3)**

This course introduces students to the study of significant works of literature in selected genres. Emphasis is on discussion of and writing about characteristics and themes of the works. A student may enroll in this course more than one time (for different genres); however, only three credits will be applied toward degree. (3 hours lecture)

*Prerequisite: A grade of "C" or better in ENG 100.*

DL

The student learning outcomes are:

- Use concepts and terminology particular to literary study to analyze and interpret imaginative literary works orally and in writing.
- Respond to a work of literature as an expression of a culture's values and compare those with the student's own.
- Enjoy a more creative, enlightened, and fulfilled life through an appreciation of literature's social, cultural, political, and philosophical themes and techniques.
- Exhibit knowledge about selected writers and their characteristic themes and techniques.

### **ENG 272 Introduction to Literature: Culture and Literature (3)**

This course introduces students to the study of significant works of literature in selected cultures and cultural formations. Emphasis is on discussion of and writing about characteristics and themes of the works. A student may enroll in this course more than one time (for different cultures); however, only three credits will be applied toward degree. (3 hours lecture)

*Prerequisite: A grade of "C" or better in ENG 100.*

DL

The student learning outcomes are:

- Use concepts and terminology particular to literary study to analyze and interpret imaginative literary works orally and in writing.
- Respond to a work of literature as an expression of a culture's values and compare those with the student's own.
- Enjoy a more creative, enlightened, and fulfilled life through an appreciation of literature's social, cultural, political, and philosophical themes and techniques.
- Exhibit knowledge about selected writers and their characteristic themes and techniques.

### **ENG 280 Book Production: Pueo Literary and Art Journal (3)**

This course is intended to acquaint students with the theory, practice, and skills required to publish a book (Pueo Literary and Art Journal), and, by extension, enable students to participate in the production of any small publication such as magazines, handbooks, manuals, brochures, flyers, newsletters, etc. To varying degrees over two semesters, the course covers planning, publicity, selection, editing, proofreading, layout, production, distribution, and celebration. Six credits may be applied to the AA degree.

*Prerequisite: Grade of "C" or better in ENG 100 or consent of instructor.*

*Recommended Preparation: Willingness to carry out collaborative responsibilities on time and to work cooperatively with others. Strong knowledge of grammar, word usage, and punctuation. Awareness of literary forms and styles. Basic computer skills. An eye for visual detail.*

The student learning outcomes are:

- Evaluate how audience, purpose, and mode of publication affect publication design.
- Employ skills such as editing, proofreading, design, and layout.
- Participate in imaginative and creative collaboration in the production of a journal that maintains high standards.

## Family Resources

### **FAMR 230 Human Development (3)**

This course provides students with theories of biological, cognitive, and psycho-social development from infancy to adulthood and with similarities and differences among individuals and their cultures. (3 hours lecture)

*Recommended Preparation: PSY 100.*

DS

The student learning outcomes are:

- Compare and contrast the various theories of human development and behavior.
- Describe biological, cognitive, and psychosocial development for each life-span period.
- Investigate the existence of similarities, differences, and uniqueness in human development among individuals and their culture.
- Apply human development theories and concepts to personal, social, educational, and occupational experiences.

## Food Science and Human Nutrition

### **FSHN 185 Human Nutrition (3)**

An introductory level biological science course which integrates basic concepts of science with the study of human nutrition. Designed for students who want an introduction to nutrition, as well as those who later choose to major in it. (3 hours lecture)

*Prerequisite: Placement in ENG 100 and credit in Math 25, 26, 29, or 82 or higher, placement into Math 103 or higher, or consent of instructor.*

DB

The student learning outcomes are:

- Describe the six categories of nutrients and evaluate the nutrient adequacy of a diet.
- Identify factors influencing eating habits.
- Correctly interpret and evaluate information on food labels, packages and product advertising based on generally accepted scientific methods and standards.
- Define various types of malnutrition and discuss their causes, cures, and associated health effects.
- Discuss current issues related to the safety of the food supply, using concepts from toxicology.
- Describe physiological changes that occur during the life cycle and explain the changes in nutrient needs that accompany these changes.
- Discuss various environmental and ecological conditions, which interact with human nutrition, both locally and globally.

## Geography

### **GEOG 101 The Natural Environment (3)**

Survey of the natural environment; distribution and interrelationships of climates, vegetation, soil, and land forms. (3 hours lecture)

DP

The student learning outcomes are:

- Describe the components (inputs), processes (actions) and resulting spatial patterns (outputs) of the physical environment

## Course Descriptions

(atmosphere, hydrosphere, lithosphere and biosphere) as a system.

- Apply the scientific method, and theories and concepts of geography to explain a physical environment.
- Explain critically the interaction of humans and the physical environment.
- Illustrate how his/her views of the physical environment have (or have not) changed.

### **GEOG 101L The Natural Environment Laboratory (1)**

Analysis by use of maps, air photos, field and laboratory observation, and experimentation. Emphasis on Hawai'i and on human modification of environment. Required field trips during regular class hours. (3 hours laboratory)

*Prerequisite: Credit for or registration in GEOG 101.*

DY

The student learning outcomes are:

- Apply the scientific method to study a physical environment: Define a problem for a study, gather and record data, analyze the data, arrive at appropriate conclusions, and report the findings in written form.
- Use various instruments, such as a compass, GPS unit and thermometer, to gather environmental data.
- Use the metric system, scientific notation, graphs, and geographic and basic statistical measurements.
- Write a lab report using the standard scientific format.

### **GEOG 102 World Regional Geography (3)**

Geography 102 is a survey of the world's major cultural regions. Environmental, cultural, political, and economic characteristics of each region and regional interactions are explored from a geographic perspective. (3 hours lecture)

FGB

The student learning outcomes are:

- Demonstrate knowledge of basic geographic terms, locations, concepts, theories, and methodology.
- Demonstrating an understanding of historical, social and environmental processes shaping the world's major cultural regions.
- Apply the knowledge of basic geographic terms, locations, concepts, theories, and methodology to critically explain current world events and issues and daily events.

### **GEOG 151 Geography and Contemporary Society (3)**

Elements of population geography and urban studies, economic geography and resource management; application to current problems of developed and underdeveloped countries. (3 hours lecture)

DS

The student learning outcomes are:

- Describe and map major themes in human society and culture: population, economy, politics, language, religion, customs, and conflict.
- Apply scientific method, and theories and concepts of geography to explain the nature, history, and diffusion of the major themes.

- Synthesize cross-cultural perspectives on current issues in the major themes.
- Communicate the achievement in written form and/or in other artistic expressions such as photograph.

### **GEOG 252 The Landscape of Japan: Natural, Cultural and Historical (3)**

Analyses of ordinary and symbolic landscapes of Japan from natural, cultural and historical perspectives. The course interprets a landscape synthesizing underlying physical, cultural and historical settings of the landscape. (3 hour lecture)

*Recommended Preparation: Knowledge of Japanese culture and language.*

DS

The student learning outcomes are:

- Identify and describe an ordinary or symbolic landscape of Japan
- Describe the natural, cultural, and historical settings of Japan behind the landscape
- Analyze the landscape by applying the natural, cultural, and historical settings.
- Evaluate the landscapes of Japan through using local, national, and global perspectives

## Geology and Geophysics

### **GG 101 Dynamic Earth (3)**

The natural physical environment; the landscape; rocks and minerals, rivers and oceans; volcanism, earthquakes and other processes inside the Earth; effects of human use on the Earth and its resources. Field trip. (3 hours lecture)

DP

The student learning outcomes are:

- Explain the relevance of geology and geophysics to human needs, including those appropriate to Hawai'i, and be able to discuss issues related to geology and its impact on society and planet Earth.
- Apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
- Use the scientific method to define, critically analyze, and solve a problem in earth science.
- Reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
- Evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.

### **GG 101L Dynamic Earth Laboratory (1)**

Hands-on study of minerals, rocks, and topographic maps. Examine volcanism, hydrology, coastal processes and hazards, geologic time and earthquakes. Field trips to investigate landslides, beaches and O'ahu geology. (3 hours laboratory)

DY

The student learning outcomes are:



## Course Descriptions

- Explain the relevance of geology and geophysics to human needs, including those appropriate to Hawai'i, and be able to discuss issues related to geology and its impact on society and planet Earth.
- Apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
- Use the scientific method to define, critically analyze, and solve a problem in earth science.
- Reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
- Evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.

### **GG 103 Geology of the Hawaiian Islands (3)**

Hawaiian geology and geologic processes: origin of Hawaiian Islands, volcanism, rocks and minerals, land forms, stream and coastal processes, landslides, earthquakes and tsunamis, ground water, geologic and environmental hazards. Field trips arranged. (3 hours lecture)

DP

The student learning outcomes are:

- explain the relevance of geology and geophysics to human needs, including those appropriate to Hawaii, and be able to discuss issues related to geology and its impact on society and planet Earth.
- Apply technical knowledge of relevant computer applications, laboratory methods, and field methods to solve real-world problems in geology and geophysics.
- Use the scientific method to define, critically analyze, and solve a problem in earth science.
- Reconstruct, clearly and ethically, geological knowledge in both oral presentations and written reports.
- Evaluate, interpret, and summarize the basic principles of geology and geophysics, including the fundamental tenets of the sub-disciplines, and their context in relationship to other core sciences, to explain complex phenomena in geology and geophysics.

### **GG 210 O'ahu Field Geology (1)**

Field trip and laboratory sessions relating to the Geology of O'ahu. (3 hours laboratory)

*Prerequisite: Credit for or registration in GG 101, GG 103, or consent of instructor.*

DY

The student learning outcomes are:

- Understand through field observation, with field and laboratory exercises, geological processes that construct, modify, and destroy the Hawaiian landscape.
- Realize the hazards, mitigation of these hazards and benefits of Hawaiian volcanism, and its relationship to island culture(s).
- Appreciate current research and studies of Hawaiian volcanism through visits to appropriate museums and research laboratories.

- Understand the vastness of geological time applied to Hawai'i, and how time is measured thus the time-scale known.

### **GG 211 Big Island Field Geology (1)**

A four-day field trip on the island of Hawai'i. A survey of Hawaiian volcanic processes is illustrated by studying Kilauea, Mauna Kea, Mauna Loa, Hualalai, and Kohala volcanoes. Students are responsible for air and ground transportation, meals, and lodging. (3 hours laboratory)

*Prerequisite: Credit for or registration in GG 101, GG 103, or consent of instructor. Must have medical clearance.*

DY

The student learning outcomes are:

- Understand through field observation, with field and laboratory exercises, geological processes that construct, modify, and destroy the Hawaiian landscape.
- Realize the hazards, mitigation of these hazards and benefits of Hawaiian volcanism, and its relationship to island culture(s).
- Appreciate current research and studies of Hawaiian volcanism through visits to appropriate museums and research laboratories.
- Understand the vastness of geological time applied to Hawai'i, and how time is measured thus the time-scale known.

### **GG 212 Maui Field Geology (1)**

A four-day field trip on the island of Maui. A survey of Hawaiian volcanology and geomorphology illustrated by field studies of Haleakala and West Maui volcanoes. Students are responsible for air and ground transportation, meals, and lodging. (3 hours laboratory)

*Prerequisite: Credit for or registration in GG 101, GG 103, or consent of instructor. Must have medical clearance.*

DY

The student learning outcomes are:

- Understand through field observation, with field and laboratory exercises, geological processes that construct, modify, and destroy the Hawaiian landscape.
- Realize the hazards, mitigation of these hazards and benefits of Hawaiian volcanism, and its relationship to island culture(s).
- Appreciate current research and studies of Hawaiian volcanism through visits to appropriate museums and research laboratories.
- Understand the vastness of geological time applied to Hawai'i, and how time is measured thus the time-scale known.

### **GG 213 Moloka'i, Lana'i, and Kaho'olawe Field Geology (1)**

A four-day field trip on the islands of Moloka'i and Lana'i. Field studies of East Moloka'i, West Moloka'i, Mākanalua (Kalaupapa) and Lana'i volcanoes, and directed reading on Kaho'olawe volcano. Students are responsible for air and ground transportation, meals, and lodging. (3 hours laboratory)

*Prerequisite: Credit for or registration in GG 101, GG 103, or consent of instructor. Must have medical clearance.*

DY

The student learning outcomes are:

- Understand through field observation, with field and laboratory exercises, geological processes that construct, modify, and

## Course Descriptions

- destroy the Hawaiian landscape.
- Realize the hazards, mitigation of these hazards and benefits of Hawaiian volcanism, and its relationship to island culture(s).
- Appreciate current research and studies of Hawaiian volcanism through visits to appropriate museums and research laboratories.
- Understand the vastness of geological time applied to Hawai'i, and how time is measured thus the time-scale known.

### **GG 214 Kaua'i and Ni'ihau Field Geology (1)**

A four-day field trip on the island of Kaua'i to study the volcanological evolution and continuing geological history of Kaua'i and Ni'ihau volcanoes. Students are responsible for air and ground transportation, meals, and lodging. (3 hours laboratory)

*Prerequisite: Credit for or registration in GG 101, GG 103, or consent of instructor.*

DY

The student learning outcomes are:

- Understand through field observation, with field and laboratory exercises, geological processes that construct, modify, and destroy the Hawaiian landscape.
- Realize the hazards, mitigation of these hazards and benefits of Hawaiian volcanism, and its relationship to island culture(s).
- Appreciate current research and studies of Hawaiian volcanism through visits to appropriate museums and research laboratories.
- Understand the vastness of geological time applied to Hawai'i, and how time is measured thus the time-scale known.

## Hawaiian Language

### **HAW 101 Elementary Hawaiian I (4)**

An elementary course in the Hawaiian language which focuses on rules of grammar, pattern drills, the building of an adequate vocabulary to facilitate conversation, and reading of selected materials at an elementary level. (4 hours lecture)

The student learning outcomes are:

- Recognize and reproduce the correct pronunciation of consonants, semivowels, vowels, diphthongs, words and names in Hawaiian.
- Demonstrate the ability to comprehend and respond to basic directions, requests, questions and answers.
- Demonstrate the ability to generate basic phrases and sentences for everyday situations with a vocabulary of 400-500 Hawaiian words, plus idiomatic expressions.
- Demonstrate the ability to read and write Hawaiian sentences at an elementary level on subject matter covered in class.
- Speak Hawaiian with the proper inflection, intonation, and rhythm.

### **HAW 102 Elementary Hawaiian II (4)**

Continuation of HAW 101. (4 hours lecture)

*Prerequisite: Credit for HAW 101 or consent of instructor.*

The student learning outcomes are:

- Demonstrate the increased ability to comprehend and respond to basic spoken Hawaiian about daily activities, about the

student's life and interests and to narrate past, present and future events.

- Demonstrate the increased ability to read and write Hawaiian sentences using more grammatical patterns and a working vocabulary of some 1,000 words, plus idiomatic expressions.
- Speak Hawaiian with increasing fluency and with correct inflection, intonation and rhythm.

### **HAW 201 Intermediate Hawaiian I (4)**

Continuation of HAW 102 with emphasis on increasing proficiency in use of major sentence patterns in reading, writing, conversation, and translation. (4 hours lecture)

*Prerequisite: Credit for HAW 102 or consent of instructor.*

The student learning outcomes are:

- Demonstrate the ability to comprehend and respond to sentence structures of greater length and complexity on a variety of topics.
- Demonstrate the ability to comprehend, speak, read and write at the intermediate level with a working vocabulary of some 1,500 words, plus idiomatic expressions.
- Write original expositions and communicate on a variety of topics within the student's experience.

### **HAW 202 Intermediate Hawaiian II (4)**

Continuation of HAW 201. Further refinement of basic language skills including vocabulary development beyond the 201 level. Increased control over structures and idioms. Includes readings about history, culture, and diverse forms of literature. (4 hours lecture)

*Prerequisite: Credit for HAW 201 or consent of instructor.*

The student learning outcomes are:

- Listen and sustain comprehension of connected discourse on a variety of topics.
- Demonstrate oral and written proficiency in grammatical patterns of greater complexity, with a working vocabulary of some 2,000 words, plus idiomatic expressions.
- Demonstrate the ability to initiate, sustain and close a general conversation with a number of strategies appropriate to a range of circumstances and topics.
- Demonstrate a basic familiarity with Hawaiian verbal art forms; 'ōlelo no'eau, mele, oli, pule, mo'olelo, and ka'ao.

## Hawaiian Studies

### **HWST 107 Hawai'i: Center of the Pacific (3)**

An introduction to Hawai'i and Hawaiian culture in the context of the larger Pacific, including Hawaiian origins, settlement, language, land, history, society, religion and the arts. (3 hours lecture)

DH

The student learning outcomes are:

- Compare and contrast cultures and histories of Pacific island peoples in relation to their languages, religious traditions, artistic expressions, material culture, and political and economic development.
- Identify ways in which the environment has shaped Hawaiian and Pacific island culture.
- Describe the integration of land in Hawaiian culture and the historic changes in the relationship between people and land

through written and oral communication.

- Describe aspects of Hawaiian relationship with other groups of people in and outside of Hawai'i.
- Identify, access, and evaluate major Hawaiian studies sources.
- Identify implications of the relationships and develop proposals for possible ways to affect positive change.

### HWST 115 Mo'okūauhau: Hawaiian Genealogies (3)

This is a course in which students will learn about the centrality of genealogy to Hawaiian history, culture, and family. Students of any ancestry or background will gain value in learning about a central aspect of Hawaiian culture, and in doing research that is geared toward either their own family genealogy or the researching of the genealogies of public figures, or historical figures. Students will be guided through a research process and set of research methodologies for vital statistics, land, tax, census, historical material, and online resources. Students will also learn chiefly and family genealogies of Hawai'i, which is a Hawaiian method through which some of the history of Hawai'i is also explored. By completion of the semester, students will be expected to assemble a genealogy and family history beyond what they might already have completed before enrollment in this class for either themselves or a public figure cleared by the instructors of this course. (3 hours lecture)

DH

The student learning outcomes are:

- Demonstrate knowledge of the centrality and importance of genealogy to Hawaiian culture.
- Show knowledge of some of the major genealogies of Hawaiian chiefs and large families in Hawai'i.
- Demonstrate the ability to conduct research in public and private institutions in Hawai'i, and through the use of internet genealogy web sites.
- Show that they are able to research and construct a genealogy and family history.

### HWST 130 Hula 'Ōlapa: Traditional Hawaiian Dance (3)

In this class students will learn various beginning traditional hula interpretations. Students will be taught the basic footwork and hand gestures of traditional hula accompanied by chanting, Ipu Heke (double gourd) or Pahu (drum). Students may also be required to make accompanying instruments like Ipu (smaller single gourd), Kala'au (sticks), 'Ili'ili (stones), and Pū'ili (split bamboo), and learn accompanying oli (chants) under the direction of the class instructor. Students will be taught different historical aspects of specific hula, associated hula mythology, ali'i (chiefly) genealogies, plants and place names. (2 hours lecture, 2 hours laboratory)

DA

The student learning outcomes are:

- Learn a basic understanding of the differences between traditional and more modern styles of hula including the significance of hula as part of Hawaiian culture in traditional times.
- Learn the histories and mythologies behind the creation and performance of various hula.
- Learn how to perform several hula in unison, and the relationship between movements with the significance of lyrical content in a mele or oli combined with the occasions

for which one is dancing.

- Learn how to prepare adornments for their specific hula.

### HWST 131 Hula 'Ōlapa 'Elua: Traditional Hawaiian Dance II

Continuation of HWST 130. In this second class, students will learn intermediate traditional hula interpretations. Foot work and hand gestures of traditional hula will be reinforced accompanied by chanting, Ipu Heke (double gourd) or Pahu (drum). Students will be exposed to chants, and pule of traditional and ceremonial protocols related to the discipline of hula. Students may also be required to make accompanying instruments, like Ipu (smaller single gourd), Kala'au (sticks), 'Ili'ili (stones), and Pū'ili (split bamboo) under the direction of the class instructor. Students will be taught different historical aspects of specific hula, associated hula mythology, ali'i (chiefly) genealogies; plants, and place names. (2 hours lecture, 2 hours lecture/lab)

*Prerequisite: Credit for HWST 130, and enrollment in or credit for HAW 101 or HWST 107.*

DA

The student learning outcomes are:

- Describe and discuss the stories behind the creation and performance of various hula.
- Perform several hula demonstrating the relationship between movements and the significance of lyrical content in mele.
- Prepare and use adornment for specific hula.

### HWST 135 Kālai Lā'au: Hawaiian Woodwork and Wood Carving (3)

This is a Hawaiian cultural woodwork and wood carving project class. This class will involve the development of two to three introductory woodworking projects of Hawaiian cultural significance or ceremonial use. Through this class the students will develop both the skills needed to work effectively and safely with wood, and the cultural knowledge important to the pieces developed. As a project class, there will be specific projects and themes set by the instructor of general Hawaiian cultural interest. Students will learn different aspects and solutions in carving and creating Hawaiian cultural projects. (6 hours studio)

DA

The student learning outcomes are:

- Learn to plan and create wood working projects of Hawaiian cultural relevance or significance.
- Gain a deeper insight into Hawaiian cultural use of wood.
- Gain a deeper understanding of the cultural significance of the wood-working project the student has undertaken.
- Learn to work with wood in an effective and safe manner.

### HWST 136 Kālai Lā'au II: Advanced Techniques in Hawaiian Carving (3)

This is a Hawaiian cultural carving class that is a continuation of the themes and techniques learned in HWST 135 Kālai Lā'au. Students will be required to complete at least one large piece and two highly finished smaller pieces. Students will be expected to have a basic understanding of carving upon entering the class and will spend their time fine tuning and working on a larger scale. Through this class students will develop skills and techniques with more advanced

## Course Descriptions

tools needed to work effectively and safely with wood, bone, and/or stone, and students will acquire the cultural knowledge important to the pieces developed. Students will also learn how to make some of the tools required for use in the class. (6 hours studio)

*Prerequisite:* Credit for HWST 135 with a grade of "B" or better, or consent of the instructor.

DA

The student learning outcomes are:

- Students will plan and complete carving projects using advanced tools on wood, stone, and bone in an effective and safe manner.
- Students will research and analyze Hawaiian cultural use of wood, bone, and stone.
- Students will be able to design, forge and finish a tool for use in carving projects.

### **HWST 140 Mahi'ai I: Hawaiian Taro Culture (3)**

The first mahi'ai course in a series of four in Hawaiian cultivation practices. Covers the history, lore, and geographically specific methods of mahi'ai. Emphasis on the cultivation of kalo and related staple foods. (3 lecture hrs.)

*Recommended Preparation:* HWST 107

DH

The student learning outcomes are:

- Tell the Mo'olelo (traditional history) of kalo
- Explain the cultural significance of kalo in Hawaiian culture
- Identify varieties of kalo and their characteristics
- Record and analyze observations of kalo cultivation
- Create papa ku'i 'ai

### **HWST 222 Ma'awe No'eau: Hawaiian Fiber Work (3)**

This is a Hawaiian cultural fiber arts project class. This class will involve the development of three to four introductory fiber arts projects of Hawaiian cultural significance or ceremonial use. Through this class students will learn how to procure the materials needed to complete various fiber arts projects, including learning related protocol and methods for gathering, understanding of Native Hawaiian gathering rights, and the type of environments in which specific materials grow and can be gathered. Students will develop the skills needed to work effectively and safely with various fiber arts materials on introductory projects, and students will learn the cultural knowledge important to the pieces created. As a project class, there will be specific projects and themes set by the instructor of general Hawaiian cultural interest. (6 hours studio)

DA

The student learning outcomes are:

- Plan, create, and finish, in a safe and effective manner, fiber arts projects of Hawaiian cultural relevance or significance.
- Explain issues and history of fiber material use in Hawaiian culture and, observing cultural protocols, apply these to gathering materials for a fiber arts project.

### **HWST 255 Introduction to the Hawaiian Kingdom (3)**

This course covers the origins and features of the Hawaiian state. Starting with Hawai'i's roots as a navigator society, this course explores the island kingdoms of Kaua'i, O'ahu, Maui and Hawai'i island. Detailed interaction between Hawaiians and navigators

from other countries around the world such as Cook and Vancouver open up an investigation through the reign of Kamehameha I and his powerful wife Ka'ahumanu. The decision to construct a constitutional monarchy, achieve state recognition and develop a modern nation-state are examined further through the eighty-eight year period of Kingdom of Hawai'i statecraft. Using tools from history, linguistics, political science and law, students will engage the transition of Hawaiian political systems as they emerged across specific periods with an eye towards developing theoretical frameworks for understanding why Hawaiian political systems progressed as they did. (3 hours lecture)

*Prerequisite:* A grade of "C" or better in HWST 107, HIST 284 or HIST 224.

DH

The student learning outcomes are:

- Identify and analyze key narratives, historical figures and events in the discovery and settlement of the Hawaiian Islands.
- Identify and analyze key historical figures and events in the formation and development of the Hawaiian nation and state through the 19th century.
- Describe and analyze the historical interaction between Hawaiian and European values, ideas and technology as they relate to political systems.

### **HWST 265 Hawaiian Social Movements (3)**

This class will use social movement theories to examine the origins, influences, issues, tactics, political and social successes, and failures related to the emergence of Hawaiian ethnic participation in social movements in Hawai'i. Topics will include, for example, the 1895 Wilcox Rebellion, the 1897 Hui Aloha 'Āina petition drive, the Hawaiian Renaissance with its cultural movement, struggles over water, land, militarization, civil rights, the indigenous rights movements, and present day Hawaiian social movement organizations and issues. (3 hours lecture)

*Prerequisite:* Credit for HWST 107, POLS 180, HIST 224, or HIST 284.

The student learning outcomes are:

- Identify major issues and key events related to significant Hawaiian social movements.
- Use social movement theories to evaluate the political and social influences, issues, and tactics of specific Hawaiian social movements.
- Analyze social dynamics as related to Hawaiian social movements.

### **HWST 270 Hawaiian Mythology (3)**

A survey of gods, 'aumakua, kupua, mythical heroes, heroines and their kinolau as the basis of traditional Hawaiian metaphor. (3 hours lecture)

*Prerequisite:* Credit for HWST 107 or HAW 102.

DH

The student learning outcomes are:

- Evaluate and analyze the relationship between Hawaiian mo'olelo, Hawaiian religion, and Hawaiian social structure.
- Analyze how Hawaiian mo'olelo illustrate and set precedents for Hawaiian cultural values.
- Compare and contrast Hawaiian and Western concepts of 'history' and 'myth'.
- Identify and access major written and oral sources for Hawaiian



mo'olelo.

- Recount with details at least one Hawaiian mo'olelo and illustrate similarities with others.
- Describe and classify different characters from Hawaiian mo'olelo.

### HWST 273 Tattoo Traditions of Polynesia (3)

An overview of the traditional tattoo practices of the various Polynesian islands within the context of the great Pacific. (3 hours lecture)

DH

The student learning outcomes are:

- Compare and contrast the migrations and the peopling of the Pacific focusing on ancestral connections and continuities in the tattoo practices of the Pacific peoples.
- Identify primary and secondary source material and incorporate original documents in their analysis whenever possible.
- Identify the cultural contexts and differences (both traditional and modern) among the tattoo styles of the primary Polynesian groups.

### HWST 275 Wahi Pana: Mythology of the Hawaiian Landscape (3)

Wahi Pana: Mythology of the Landscape, is designed to illuminate Hawaiian intelligence regarding the geographic features of these islands. Students will undertake a basic study of the natural sciences from a Western/modern perspective. They will then look at various Hawaiian chants and epic tales to explore the connections with indigenous knowledge forms found in a Hawaiian worldview. Cross-cultural comparisons are made with the goal of bringing forth specific, physical information about important Hawaiian places. Students will gain cultural awareness of their surroundings through the bridging of geography and the mythology studied, thus creating a more Hawaiian sense-of-place in our community. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in HWST 107, or HWST 270.

*Recommended Preparation:* REL 205.

DL

The student learning outcomes are:

- Students will compare and contrast landscape descriptions, mythology, and human behavior from different cultural perspectives.
- Students will analyze Hawaiian mythology as it applies to Hawaiian place names, Native Hawaiian social history, and Native Hawaiian relationship to the natural environment.
- The student will explain the importance of place in the island ecosystem and the values of environmental sustainability.

### HWST 275L Wahi Pana: Mythology of the Hawaiian Landscape Field Lab (1)

This field lab supports HWST 275. Together, they illuminate Hawaiian intelligence regarding the geographic features of these islands. The course highlights the Ko'olau districts (Waimānalo to Waimea) or O'ahu as a living classroom resource where the Wahi Pana (sacred places) and mythology of the landscape can be seen and appreciated. Students will explore connections between the social and natural sciences, and indigenous knowledge forms found in a Hawaiian worldview from observing their physical surroundings. Cross-cultural comparisons are made with the goal of bringing forth

specific, physical information about important Hawaiian places. (3 hours laboratory)

*Prerequisite:* Enrollment or credit in HWST 275 lecture component.

DH

The student learning outcomes are:

- Students will examine the physical properties of the geographic landscape to identify their place in Hawaiian myths.
- Students will observe the physical properties of the physical landscape and describe them from a Hawaiian worldview.

### HWST 285 Lā'au Lapa'au I: Hawaiian Medicinal Herbs (4)

In this class students will learn the basic philosophy and traditions surrounding Hawaiian healing herbs. Students will also learn how to identify, grow, harvest, prepare, store and use these herbs for various human ailments. (3 hours lecture, 3 hours laboratory)

*Prerequisite:* Credit for HWST 107 or BOT 105.

DH

The student learning outcomes are:

- Learn Hawaiian and introduced medicinal herbs and be able to identify them by name, color, smell, taste, and sight.
- Learn the beliefs and practices of Hawaiian herbal healing.
- Learn planting, growing and harvesting techniques used to raise traditional Hawaiian herbal healing plants.
- Prepare, use and store Hawaiian herbal remedies.

### HWST 296 Special Topics in Hawaiian Studies (3)

Students will investigate important topics in Hawaiian Studies such as specific people, events, or periods. May be repeated up to 9 credits with different topics. (3 hours lecture)

*Prerequisite:* "C" or better in HWST 107.

The student learning outcomes are:

- Identify the important concepts and facts particular to the selected course topic.
- Analyze and interpret the nature and significance of the selected course topic.
- Investigate connections between the selected course topic and contemporary events and issues.

## Health

### HLTH 125 Survey of Medical Terminology (1)

HLTH 125 familiarizes the student with medical terminology used in both human and animal medicine through analysis of prefixes, suffixes, and word roots. This course covers the pronunciation, spelling, and definitions of selected medical words dealing with mammalian body systems. Commonly used medical abbreviations and pharmacological terms are also discussed. (1 hour lecture)

*Prerequisite:* Grade of "C" or better in ENG 21 or ENG 23, or placement in ENG 100X, which requires co-requisite enrollment in ENG 100.

The student learning outcomes are:

- Correctly define, spell and pronounce selected medical terms dealing with anatomical planes and regions, anatomy of major body systems and associated diseases and disorders.
- Correctly use plural endings for medical terms.
- Apply knowledge of root words, prefixes and suffixes to identify

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meaning of novel medical terms.

- Define and give examples of terminology used to describe common surgical and diagnostic procedures.
- Recognize and define common medical and pharmacological abbreviations.

## History

### **HIST 151 World History to 1500 (3)**

A global and historical survey focusing on human societies and cross-cultural interactions to 1500 C.E. (3 hours lecture)

FGA

The student learning outcomes are:

- Identify important individuals, events, places, organizations and concepts in pre-modern world history.
- Arrange, in chronological order, significant events in world history.
- Describe and analyze global processes from prehistory to 1500 C.E. (e.g. human migration, ecological forces, spread of world religions, creation of empires).
- Explain cause and effect relationships in history.
- Compare and contrast historical experiences across cultures and time.
- Relate historical events to contemporary issues and events.

### **HIST 152 World History since 1500 (3)**

A global and historical survey focusing on human societies and cross-cultural interactions since 1500 C.E. (3 hours lecture)

FGB

The student learning outcomes are:

- Identify important individuals, events, places, organizations and concepts in modern world history.
- Arrange, in chronological order, significant events in world history.
- Describe and analyze global processes from 1500 C.E. to the present (e.g. human migration, ecological forces, imperialism, decolonialism, industrialism, nationalism, globalization).
- Explain cause and effect relationships in history.
- Compare and contrast historical experiences across cultures and time.
- Relate historical events to contemporary issues and events.

### **HIST 230 Pre-Modern European Civilization (3)**

A survey of Pre-Modern Europe to 1500 CE. Focus is given to the political evolution and the major economic, social, and cultural development of European states. (3 hours lecture)

*Recommended Preparation: HIST 151.*

DH

The student learning outcomes are:

- Analyze the individuals' roles, events, ideas, and processes (i.e., human migrations, ecological forces, cross-cultural encounters, spread of world religions) that gave rise to a distinct European civilization.
- Synthesize primary sources in order to evidence an argument dealing with a significant issue in Pre-Modern European history.
- Evaluate contemporary issues and events in terms of

Pre-Modern European events (i.e., historical roots).

### **HIST 231 Modern European Civilization I (3)**

HIST 231 is a survey of European history from 1500 to 1800. Focus is given to the political evolution and the major economic, social, and cultural development of European States. (3 hours lecture)

*Prerequisite: Credit for ENG 100.*

*Recommended Preparation: HIST 151 and 152.*

DH

The student learning outcomes are:

- Identify important individuals, events, places, organizations and concepts in modern European history.
- Arrange, in chronological order, significant events in modern European history.
- Describe and analyze the processes that both allowed Europe to transform into a modern state and play a dominant role in the world (e.g., overseas exploration, trade, cross-cultural interactions, colonialism, capitalism, etc.).
- Explain cause and effect relationships in history.
- Relate historical events to contemporary issues and events.

### **HIST 232 Modern European Civilization II (3)**

HIST 232 is a continuation of HIST 231. It is a survey of the political evolution and major economic, social, and cultural development of European States from Napoleon (1800) to the present. (3 hours lecture)

*Prerequisite: Credit for ENG 100.*

*Recommended Preparation: HIST 151 and 152.*

DH

The student learning outcomes are:

- Identify important individuals, events, places, organizations and concepts in modern European history.
- Arrange, in chronological order, significant events in modern European history.
- Describe and analyze the processes that shaped modern Europe (e.g., industrialization, nationalism, cross-cultural interactions, imperialism, colonialism, migration, decolonialism, etc.).
- Explain cause and effect relationships in history.
- Relate historical events to contemporary issues and events.

### **HIST 241 Civilizations of Asia I (3)**

A survey course covering the development of the major civilizations of East Asia, South and Southeast Asia, and historical personages and events from the earliest periods to the 1500's. (3 hours lecture)

DH

The student learning outcomes are:

- Identify important individuals and events in premodern Asian history, i.e. demonstrate historical literacy.
- Describe cause and effect relationships in Asian history.
- Order chronologically significant events in Asian history.
- Describe major Asian historical processes (e.g. the agricultural revolution, the rise and spread of religions, the development of political institutions, etc.)
- Acquire a sense of historical perspective.
- Demonstrate an understanding of historical concepts as they relate to premodern Asian historical issues and events.

### **HIST 242 Civilizations of Asia II (3)**

A survey course focusing on the changes/development of the major civilizations of East Asia, South and Southeast Asia from the Sixteenth Century to the present. Particular emphasis placed on an analysis of representative Asian societies, the Asian response to the West, and Asian nationalism. (3 hours lecture)

DH

The student learning outcomes are:

- Identify important individuals and events in modern Asian history, i.e. demonstrate historical literacy.
- Describe cause and effect relationships in history.
- Order chronologically significant events in modern Asian history.
- Describe modern Asian historical processes (e.g. human migration, disease, ecological imperialism, de-colonization, industrialization, nationalism, etc.).
- Acquire a sense of historical perspective.
- Demonstrate an understanding of historical concepts as they relate to historical issues and events in Asia during the past five centuries.

### **HIST 260 Twentieth Century World History (3)**

This course covers the major individuals and political, economic, social, and culture events of the world during the twentieth century. Emphasis will be placed on global relationships, conflict, and changing patterns of interaction among cultures and peoples in an era of near-constant change. (3 hours lecture)

*Prerequisite:* Grade of C or better in ENG 100, or consent of instructor.

*Recommended Preparation:* Credit for HIST 152.

DH

The student learning outcomes are:

- Identify important individuals, events, organizations, conflicts, and concepts in twentieth century world history.
- Describe and analyze global processes of the twentieth century (e.g. imperialism, colonialism, economic trends, ecological forces, conflict/war, advancements in technology, etc.)
- Explain cause and effect relationships in twentieth century world history.
- Relate historical events to contemporary issues and events.

### **HIST 281 Introduction to American History I (3)**

An introduction to American history covering significant events in U.S. history from the colonial to Civil War period. (3 hours lecture)

DH

The student learning outcomes are:

- Describe, analyze and interpret the major themes in American history from the pre-Columbian period, through the colonial era, the American Revolution, early 19th century and the Civil War period.
- Identify important individuals and events in American history through the Civil War.
- Critically analyze primary sources.
- Make connections between contemporary events and American history.

### **HIST 282 Introduction to American History II (3)**

Continuation of HIST 281 focusing on significant events in American history from Reconstruction (1865) to the present. (3 hours lecture)

DH

The student learning outcomes are:

- Describe, analyze and interpret the major themes in American history from Reconstruction through the 20th century to the present.
- Identify important individuals and events in American history from Reconstruction to the present.
- Critically analyze primary sources.
- Make connections between contemporary events and American history.

### **HIST 284 History of Hawai'i (3)**

A general study of the social, political and economic development of Hawai'i from the ancient Hawaiians to the present. (3 hours lecture)

DH

The student learning outcomes are:

- Describe, analyze and interpret the major themes in history of Hawai'i from the pre-contact period to the present.
- Critically analyze primary sources.
- Identify important individuals and events in the history of Hawai'i.
- Make connections between contemporary events and Hawai'i's history.

### **HIST 285 Environmental History of Hawai'i (3)**

This course investigates human interactions with the natural world in the Hawaiian Islands. It is interdisciplinary, drawing on insights from history, geography, anthropology and the natural sciences. Topics covered will include island biogeography and evolution; the natural and human histories of Hawai'i; Hawaiian and American attitudes toward the environment; the impact of introduced diseases, plants and animals in Hawai'i. (3 hours lecture)

*Prerequisite:* Credit for HIST 151 or HIST 152 or consent of the instructor.

The student learning outcomes are:

- Describe cause and effect relationships in the interaction between humans and their environment.
- Understand global processes as humans, plants, animals and diseases move around the world.
- Investigate traditional Hawaiian attitudes toward nature.
- Understand the evolution of American attitudes toward nature.
- Apply outcomes 1 through 4 to historical events specific to Hawai'i and the Windward side of O'ahu.
- Acquire a sense of historical perspective for current environmental problems.

## **Information and Computer Sciences**

### **ICS 100 Computing Literacy and Applications (3)**

Fundamental information technology concepts and computing terminology, productivity software for problem solving, computer technology trends and impact on individuals and society. Emphasizes the utilization of operating systems and the production of professional documents, spreadsheets, presentations, databases,

## Course Descriptions

and web pages. (3 hours lecture)

*Recommended Preparation: Credit in both ENG 22 or ENG 23 and MATH 22, 24, 25, 26, 28, 29, 75X or higher.*

The student learning outcomes are:

- Utilize the basic features of computer applications to communicate effectively (major content area).
- Utilize operating system interfaces to manage computing resources effectively and securely.
- Utilize online resources for research and communication.
- Define, explain, and demonstrate proper computing terminology usage in areas such as hardware, software, and communications.
- Describe ethical and security issues involved in the use of computing technology.

### ICS 101 Digital Tools for the Information World (3)

Fundamental information technology concepts and computing terminology, productivity software for problem solving, computer technology trends and impact on individuals and society. Emphasizes the utilization of operating systems and the production of professional documents, spreadsheets, presentations, databases, and web pages. (3 hours lecture)

The student learning outcomes are:

- Utilize the appropriate computing applications to produce professional documents, spreadsheets, presentations, databases, and web pages for effective communication (major content area).
- Utilize operating system interfaces to manage computing resources effectively and securely.
- Extract and synthesize information from available Internet resources using intelligent search and discrimination.
- Define, explain, and demonstrate proper computing terminology usage in areas such as hardware, software, and communications to effectively interact with other computer users and to prepare for higher-level computer courses.
- Extract and synthesize information from available Internet resources using intelligent search and discrimination.
- Define, explain, and demonstrate proper computer terminology usage in areas such as hardware, software, and communications to effectively interact with other computer users and to prepare for higher-level computer courses.
- Describe ethical issues involved in the use of computer technology.

### ICS 105 Introduction to Computing Skills (3)

In this introductory computing course, students will learn basic file management, digital communication, word processing, and presentation software. Students will explore various computing systems and terminology. This course is recommended for students inexperienced in computing. (3 hours lecture)

The student learning outcomes are:

- Use appropriate computing tools to communicate effectively.
- Demonstrate basic file management tasks.
- Identify computing terminology, systems, and issues.

### ICS 107 Web Site Development (3)

An introduction to the concepts and skills for developing websites from planning through publishing. Design, usability, accessibility, markup and styling language, and integrating media will be emphasized. Web development software utilized. (3 hours lecture)

*Recommended Preparation: Intermediate computing skills including file management and common computing skills: cut, copy, paste, open/save files, web search.*

The student learning outcomes are:

- Demonstrate the website development cycle.
- Use appropriate web development software to create an effective website that communicates a message, incorporates appropriate media, and adheres to usability and accessibility standards.
- Describe ethical issues involved in the development and use of websites.

### ICS 111 Introduction to Computer Science I (3)

Intended for computer science majors and all others interested in a 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. (3 hours lecture)

*Prerequisite: MATH 103 with a grade of "C" or better, placement into MATH 135, or consent of instructor.*

The student learning outcomes are:

- Use an appropriate programming environment to design, code, compile, run, and debug computer programs.
- Demonstrate basic problem solving skills: analyzing problems, modeling a problem as a system of objects, creating algorithms, and implementing models and algorithms in an object-oriented computing language.
- Illustrate basic programming concepts such as program flow and syntax of a high-level general purpose language and basic security practices.
- Demonstrate working with primitive data types, strings, and arrays.

### ICS 113 Database Fundamentals (3)

This course examines file organization and the use of computer databases. It also examines the handling of information through its organization, management and control. A substantial part of the course develops an understanding of the data processing building blocks: files, records and fields. Techniques to report and maintain data are also covered. (3 hours lecture)

*Prerequisite: Credit in ICS 100 or ICS 101 and placement in MATH 24, 25, 26, 28, 29, 82 or higher.*

The student learning outcomes are:

- Show conversion of computer files into a database system by creating a simple database.
- Compare a relational database to a flat database.
- Dissect a database into tables, records, fields, keys, views and relationships.
- Demonstrate the normalization process.
- Find records using Structured Query Language (SQL) in a database.
- Create reports with specific records.



### ICS 119 Introduction to Social Media (3)

This computing course explores the foundations of building a presence on the Web, developing an entity's brand and creating a social channel to share ideas, expertise and business philosophies. Topics covered: choosing a domain name, securing a content hosting service, initiating content creation, and constructing a social web channel. (3 hours lecture)

*Recommended Preparation: Write well-formed sentences and organized paragraphs using proper grammar and correct spelling. Have computing skills including file management, uploading/downloading files and Internet search skills.*

The student learning outcomes are:

- Use the appropriate social media tools to create an online identity.
- Create content that uniquely represents an entity's image.
- Plan and implement a social media campaign and analyze its effectiveness.
- Analyze the ethical roles and responsibilities of a content creator.

### ICS 121 Computing Topics (1-4)

This course covers current computing topics. The course is designed to have variable credits to coincide with the rigor of the topic. May be repeated up to 6 credits with different topics. A course description will be on record to designate the various topics for a student's transcript. (1-4 lecture hours)

*Prerequisite: TBA based on course topic.*

The student learning outcomes are:

- Produce a final project to demonstrate knowledge of the computer topic.

### ICS 123 Introduction to Digital Audio and Video Production (3)

This is an introductory course covering concepts and skills of working with digital audio and video including recording, editing and publishing online. (3 hours lecture)

*Recommended Preparation: Intermediate computing skills including file management and common computing skill including cut, copy, paste, open/save files, web search and ability to independently access technical support through online forums.*

The student learning outcomes are:

- Record, edit and produce digital audio.
- Produce a digital video project to communicate an effective message.
- Define audio and video terminology and ethical practices as they apply to the use of digital media.

### ICS 141 Discrete Mathematics for Computer Science I (3)

This course covers logic, sets, functions, matrices, algorithmic concepts, mathematical reasoning, recursion, counting techniques, and probability theory. (3 hours lecture)

*Prerequisite: Grade of "C" or better in MATH 103 or placement into MATH 135 or higher, or consent of instructor.*

FS

The student learning outcomes are:

- Analyze issues and apply mathematical problem solving skills to plan courses of action in decision-making situations.
- Solve problems by using basic mathematical formal logic, proofs, recursion, analysis of algorithms, sets, combinatorics, relations, functions, matrices and probability.

### ICS 163 Design for Print (3)

Upon completion of this course, the student will (1) understand how to design professional print materials which integrate typography, images, space, and color theory; (2) be able to use desktop publishing software; (3) have developed familiarity with manipulating digital images; and (4) be able to produce materials such as business cards, fliers, brochures, and multi-page documents. (3 hours lecture)

*Recommended Preparation: Intermediate computing skills, including file management and common computer skills: cut, copy, paste, open/save files, web search.*

The student learning outcomes are:

- Produce professional documents to meet business needs.
- Demonstrate awareness of design principles in the creation of projects from initial design to final production.
- Create projects from initial design to final production.

### ICS 171 Introduction to Computer Security (3)

Examines the essentials of computer security, including risk management, the use of encryption, activity monitoring, intrusion detection; and the creation and implementation of security policies and procedures to aid in security administration. (3 hours lecture)

*Prerequisite: ICS 184 with a C or better, or concurrent enrollment, or consent of the instructor.*

The student learning outcomes are:

- List the first principles of security and describe why each principle is important to security and its relationship to the development of security mechanisms and security policies.
- Describe why good human machine interfaces are important to system use, the interaction between security and system usability and the importance for minimizing the effects of security mechanisms.
- Analyze common security failures and identify specific design principles that have been violated, and the needed design principle, when given a specific scenario.
- List the fundamental concepts of the Information Assurance/Cyber Defense discipline and describe how they can be used to provide system security.
- Identify the elements of a cryptographic system and describe the differences between symmetric and asymmetric algorithms, which cryptographic protocols, tools and techniques are appropriate for a given situation, and implementation issues.

### ICS 184 Introduction to Networking (3)

This course provides the student with the knowledge and skills to manage, maintain, troubleshoot, install, operate and configure basic network infrastructure, as well as to describe networking technologies, basic design principles, and adhere to wiring standards and use testing tools. The course also introduces the student to network security concepts. (3 hours lecture)

The student learning outcomes are:

- Manage networking projects as part of a team.

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- Discuss information security technologies such as cryptography, digital signatures, key management, and authentication as they relate to computer networks.
- Describe the fundamental concepts, technologies, components, terminology, protocols, standards organizations, and business, legal, ethical, and security issues related to communications and data networks.
- Describe a basic secure network architecture in accordance with current best practices given a specific need and set of hosts/clients.
- Use current network tools to monitor, map and troubleshoot a network and to track and identify packets.

### ICS 193V Cooperative Education/Internship/Practicum (1-3)

Cooperative program between the student, an employer, and the College that integrates classroom learning with supervised practical experience. Reflects the student's major interest area and availability of job assignments. Offers the opportunity to develop workplace employability skills dependent on job assignments and course of study. (1-3 hours lecture)

*Prerequisite: Various as determined by the particular course of study and placement of the cooperative education/internship practicum in the sequence of courses.*

The student learning outcomes are:

- Complete computer assignments in a job that is cooperatively supervised by the employer and College.
- Demonstrate the skills in the above assignments to both the College and the employer.

### ICS 203 Digital Image Editing (3)

Introduction to the terminology, tools, features and techniques of digital image editing. (3 hours lecture)

*Recommended Preparation: Intermediate Computing Skills which include the following: File management File compression Upload/download files Internet search skills Troubleshooting skills*

DA

The student learning outcomes are:

- Use photographic practices and concepts to demonstrate the merits of digital photography.
- Implement skills for digital image capture and manipulation with a variety of output formats and input devices.
- Apply the visual elements of line, shape, value, color, texture, space, time and motion as well as the design principles of balance, rhythm, emphasis, contrast, variation and unity in the creation of digital art works.
- Complete the creative process from concept development through revisions to final output using problem-solving strategies.

### ICS 207 Building Web Applications (3)

Web Applications introduces programming for the web. Topics include: problem solving; web interactivity for websites; building applications with web authoring languages for markup, styling and scripting; presenting applications for mobile devices. (3 hours lecture)

*Recommended Preparation: Students must have HTML and CSS*

*experience.*

The student learning outcomes are:

- Programming with javascript
- Utilizing javascript with HTML and CSS to create a web application.
- Using events to trigger an action
- Drawing on the web canvas
- Using video and audio files on a web page
- Going beyond standard fonts
- Detecting the screen size of a device and optimize the application for the different sizes
- Using local storage to remember data across web sessions.

### ICS 208 Website Design (3)

Introduces basic principles related to website design including terminology, tools, media, layout principles, and concepts. Topics and tasks include the creation of digital images and media for Web use, the integration of design elements into websites, and the development of skills in industry-standard computer programs. (3 hours lecture)

*Prerequisite: ICS 107 or consent of instructor.*

The student learning outcomes are:

- Demonstrate understanding of important design techniques, concept development and composition.
- Utilize image editing tools to create and edit images.
- Apply web media and consistent styling to increase appeal throughout a website while maintaining usability and accessibility.

### ICS 211 Introduction to Computer Science II (3)

Reinforce and strengthen problem-solving skills using abstract data types and introduce software development practices. Emphasize the use of searching and sorting algorithms and their complexity, recursion, object-oriented programming, and data structures. (3 hours lecture)

*Prerequisite: A grade of "C" or better in ICS 111 or consent of instructor.*

The student learning outcomes are:

- Use and implement abstract data types such as lists, stacks, queues, and trees.
- Select the appropriate searching or sorting algorithm based on the algorithm's behavior.
- Develop recursive algorithms and programs.
- Use standard libraries or packages as well as advanced object-oriented programming techniques (polymorphism, inheritance, and encapsulation).
- Produce robust and secure programs using exception handling and extensive program testing.

### ICS 212 Program Structure (3)

Program organization paradigms, programming environments, implementation of a module from specifications, the C and C++ programming languages. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ICS 211 or consent of instructor.*

The student learning outcomes are:

- Use an editor, makefile, and a compiler in the UNIX environment.
- Use recursion, arrays, pointers, character variables, bitwise

- operators, structures, and linked data structures in C.
- Use classes (constructors, destructor, and overloading assignment), operator overloading, inheritance, and polymorphism in C++.
- Use linked data structures and recursion in C++.
- Use standard C++ strings and C++ STL library data structures, such as STL lists.

### ICS 215 Introduction to Scripting (3)

Introduction to scripting languages for the integration of applications and systems. Scripting in operating systems, web pages, server-side application integration, regular expressions, event handling, input validation, selection, repetition, and parameter passing for languages such as Perl, JavaScript, PHP, Python, and/or shell scripting. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ICS 211 or consent of instructor.*

The student learning outcomes are:

- Use regular expressions to solve different problems.
- Produce robust client and server side scripts in a variety of scripting languages using software engineering techniques such as review and extensive program testing.
- Handle user and system generated events using various scripting languages.
- Validate user input using various scripting languages for security purposes.

### ICS 241 Discrete Mathematics for Computer Science II (3)

Includes program correctness, recurrence relations and their solutions, divide and conquer relations, graph theory, trees and their applications, Boolean algebra, introduction to formal languages and automata theory. (3 hours lecture)

*Prerequisite: Grade of "C" or better in ICS 141 or consent of instructor.*

FS

The student learning outcomes are:

- Analyze issues and apply more complex mathematical problem solving skills to plan courses of actions in high-level decision-making situations.
- Utilize such tools as graphs, trees, boolean algebra, and recurrence relations.
- Explain discrete math concepts such as formal languages, finite-state machines, and program correctness.

### ICS 281 Ethical Hacking (3)

This course covers basic ethical hacking techniques also known as white hat hacking. It stresses the moral and legal issues about hacking and how these techniques can be used to defend against attacks as well as to perform authorized system security evaluation testing. (3 hours lecture)

*Prerequisite: Grade of C or better in ICS 171, or consent of instructor.*

*The student learning outcomes are:*

- Demonstrate how to apply current cyber-attack, countermeasures and best practices using current cyber defense tools, methods and components.
- Implement a defense incident response and recovery strategies.
- Evaluate the moral and legal obligations of an ethical hacker.

- Apply the knowledge gained in hardening systems to prevent or minimize attacks.

### ICS 282 Computer Forensics (3)

This course covers basic computer forensics including operating system diagnostics, the use of forensic toolkits to examine and validate computer activity and techniques for the proper collection, examination and preservation of forensic evidence. (3 hours lecture)

*Prerequisite: Grade of C or better in ICS 171, or consent of instructor.*

*The student learning outcomes are:*

- Discuss the rules, laws, policies, and procedures that affect digital forensics.
- Demonstrate the proper use of one or more common digital forensics tools.
- Describe the steps in performing digital forensics from the initial recognition of an incident through the steps of evidence gathering, preservation and analysis, through the completion of legal proceedings.

## Interdisciplinary Studies

### IS 103 Introduction to College (3)

This course offers strategies for success in college and life-long learning. It emphasizes understanding yourself, setting and attaining goals, critical thinking, effective communication, relationship building, study habits and skills, time management, college resources, and setting your foundation to succeed. Students will participate in and lead classroom learning through discussions, readings, writing assignments, group activities, and hands-on experiences. (3 hours lecture)

The student learning outcomes are:

- Identify personal characteristics (e.g., learning styles, strengths and weaknesses, habits of mind) and analyze how these impact decision-making and success.
- Consider those factors which impact student relationships with others and articulate strategies and skills to encourage strong relationship building.
- Identify college policies and resources related to students.
- Practice learning strategies (e.g., note-taking, time management, test-taking) to increase success in college coursework.

### IS 105B Career Decision Making (2)

An introductory course designed to prepare students to make more focused career/life decisions through self analysis and world of work examinations. (2 hours lecture)

*Recommended Preparation: Placement in ENG 22 or ENG 23 or higher.*

The student learning outcomes are:

- Describe the career development process, current labor market trends, and issues related to economic self-sufficiency.
- Identify personal, family, cultural, and financial influences that relate to their career and educational decisions.
- Apply career knowledge by exploring their interests, skills, values, personality traits.
- Illustrate how their career search relates to job shadowing and service learning activities choices.
- Evaluate the effectiveness of the career decision making

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process by keep a journal and responding to evaluations of the instructor.

### IS 105C Professional Employment Preparation (1)

Facilitates employment search by emphasizing professional techniques and standards in the preparation of application forms, resumes, cover letters, and employment interviews. (Cross-listed as BUSN 166.) (1 hour lecture)

*Recommended Preparation: Credit for ENG 22, ENG 23, or higher, keyboarding skills, and knowledge of word processing.*

The student learning outcomes are:

- Integrate job interview preparation techniques into a live interview.
- Utilize resources needed to find a job.
- Assemble a career portfolio for ongoing career development.

### IS 201 The Ahupua'a (3)

Study of the traditional Hawaiian approaches to natural resource development, utilization, exploitation, and management. The ahupua'a, as the traditional Hawaiian unit of land and sea subdivision, beginning in the upland forests, stretching across lower elevations, past the shoreline to the edge of the reef, will be evaluated as a microcosm of an integrated ecosystem and as a model for natural resource management and sustainability. (2 hours lecture, 3 hours laboratory, fieldwork)

*Recommended Preparation: BIOL 101 or BIOL 124 or similar preparation.*

DB DY

The student learning outcomes are:

- Describe how the Hawai'i's unique geological formation affects its sustainable natural resources.
- Describe how the ancient migration begins to affect the management of its natural resources and the socio-political fabric of the "new land."
- Describe the agri-spiritual relationship between plant and mahi'ai; and the fish and the lawai'a.
- Discuss the ancient and present management value of water.
- Describe and assist in the reconstruction of lo'i kalo and loko i'a.
- Describe and discuss the current resources management practices, which augment or negate ancient practices.
- Research and replicate an artifact of his or her choice.

### IS 204 Themes in Popular Culture (3)

An interdisciplinary study of a specific event, person, idea, or process in popular culture which will bring together various methodologies and conceptual tools to create a complex analysis. Topics covered will include: the concept of popular culture, how elements of popular culture are created and circulated, how elements of popular culture connect to historical, political, social, symbolic and intellectual history, how different groups in society are related to the elements of popular culture, and how popular culture plays a role in the lives of individuals. (3 hours lecture)

The student learning outcomes are:

- Identify the connection between the theme in popular culture with larger political, social, and intellectual patterns in society.
- Analyze the connection between the theme in popular culture and other themes, either contemporary or historical.

- Participate effectively in group discussions, given evidence of thoughtfulness and an engagement with other people's positions.
- Connect local elements of popular culture to global economic and political systems.
- Explain and justify an evaluation of the role of popular culture in the student's life.

### IS 271 Introduction to Games and Gaming (3)

This course is an interdisciplinary study of games and gaming, pulling together disparate methodologies and conceptual tools to create a complex analysis of one of the oldest human activities. (3 hours lecture.)

The student learning outcomes are:

- Analyze Game Mechanics
- Examine the Role of Gaming in Human Culture
- Design Original Game

## Japanese Language

### JPNS 101 Elementary Japanese I (4)

An introductory course focusing on grammar and vocabulary sufficient to maintain conversation at the elementary level and on the three writing systems: hiragana, katakana, and kanji. (4 hours lecture)

The student learning outcomes are:

- Understand learned phrases and sentences in various social and academic contexts.
- Read and understand learned materials written in hiragana, katakana and approximately 50 kanji with references.
- Write short phrases and sentences using the three learned writing systems with one reference. Compose short notes and memos.

### JPNS 102 Elementary Japanese II (4)

A continuation of JPNS 101 focusing on additional grammar topics and increased vocabulary to maintain conversation at the elementary level and on the three writing systems: hiragana, katakana, and kanji. (4 hours lecture)

*Prerequisite: Credit for JPNS 101 or consent of instructor.*

The student learning outcomes are:

- Understand sentences in combinations of learned and new vocabulary and grammatical structures in various contexts.
- Perform basic communication and exchanges in the context of learned material.
- Read material in hiragana, katakana and learned kanji, such as menus, short memos and messages and postcards. Have a functional command of approximately 125 essential kanji.
- Write sentences and paragraphs integrating new and learned material and structures, with master of hiragana, katakana, and a good grasp of kanji.

### JPNS 108 Basic Japanese Conversation (3)

Elementary-level conversational Japanese to develop speaking and understanding of Japanese culture. This is a course recommended for people who deal with or are interested in things concerning Japan. (3 hours lecture)



## Course Descriptions

The student learning outcomes are:

- Use basic Japanese to communicate appropriately in formal and informal situations.

### **JPNS 201 Intermediate Japanese I (4)**

A continuation of JPNS 102 focusing on additional grammar topics and increased vocabulary to maintain conversation at the intermediate level and on the three writing systems: hiragana, katakana, and kanji. (4 hours lecture)

*Prerequisite: Credit for JPNS 102 or consent of instructor.*

The student learning outcomes are:

- Understand written material previously learned and new vocabulary and kanji in the context of various experiences.
- Understand and write paragraphs on topics grounded in personal experience or from learned material.
- Handle basic communicative tasks and social situations within given contexts.
- Read with increasing understanding longer material based on learned contexts. Material is written in the three writing systems with approximately 225 kanji, including 100 new ones learned each semester.

### **JPNS 202 Intermediate Japanese II (4)**

A continuation of JPNS 201 focusing on additional grammar topics and increased vocabulary to maintain conversation with greater proficiency at the intermediate level and on the three writing systems: hiragana, katakana, and kanji. (4 hours lecture)

*Prerequisite: Credit JPNS 201 or consent of instructor.*

The student learning outcomes are:

- Sustain understanding on topics, such as automobiles and its parts; houses and household furnishings and appliances; the body, its parts, health and medicine; education, careers and the workplace.
- Handle most communicative tasks and social situations.
- Initiate, sustain and close most communicative tasks or general conversation, in given and learned contexts.
- Read written material in the three writing systems in learned and new contexts with an additional number of kanji now totaling approximately 325.
- Write simple letters, paragraphs on personal experiences, summaries, and paraphrases of written materials.

## **Journalism**

### **JOUR 120 Introduction to Digital Video Journalism (3)**

Students will develop basic skills in video production and apply them to creating journalistic stories. (Cross-listed as CM 120). (2 hours lecture, 3 hours lab)

DA

The student learning outcomes are:

- Demonstrate basic knowledge and skills of digital video production including operating a digital video camera and sound recording kit.
- Demonstrate the ability to edit a video project in a digital non-linear system.
- Develop effective storytelling skills through the use of basic

cinematography concepts—composition, light and movement.

- Produce videos independently or in groups that meet journalistic standards and ethics.

### **JOUR 150 Media and Society (3)**

The role of the media in contemporary society, including development, influence, rights, responsibilities, issues and trends - with emphasis on the social, political and economic effects. (3 hour lecture)

*Prerequisite: Credit for ENG 22 or placement in ENG 100X, which requires co-requisite enrollment in ENG 100.*

DS

The student learning outcomes are:

- Compare and evaluate various forms of mass media and their effect on society.
- Use critical reasoning skills to distinguish fact from opinion and judge the credibility of various information sources.
- Describe and apply basic mass media principles as well as social science methods (e.g. interviews, observation and surveys) to analyze examples from the media.
- Illustrate and explain why an understanding of news and media literacy is important in the 21st century.

### **JOUR 220 Intermediate Digital Video Journalism (3)**

Students will develop intermediate skills in video production and apply them to creating journalistic stories for publication on the web and other distribution platforms. Repeatable for up to 6 credits. (Cross-listed as CM 220.). (2 hours lecture, 3 hours lab)

*Prerequisite: Credit for JOUR 120 or consent of instructor.*

DA

The student learning outcomes are:

- Produce various news videos and short documentaries independently or in groups that meet professional journalistic standards and ethics.
- Generate story ideas; research, gather and organize information; follow through on assignments; and meet deadlines.
- Develop basic knowledge and skills of digital video production including cinematography, sound and editing.
- Critically analyze news videos and documentaries produced by the mass media.

### **JOUR 250 Media Writing (3)**

An introductory course in reporting and writing news stories for delivery to different media, including print, online media and video. (3 hours lecture)

*Prerequisite: "C" or better in ENG 100.*

The student learning outcomes are:

- Analyze the quality of coverage in stories produced by the mass media to become a more informed consumer of news.
- Describe the basic journalistic issues related to news values and communication law and ethics.
- Produce various multimedia writing (print, online media, and video) using journalistic concepts and principles.
- Write, edit and proofread stories for readability, clarity, accuracy, news value, conciseness and mechanics.

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### **JOUR 270 Introduction to Multimedia Storytelling (3)**

Fundamentals of multimedia storytelling using video, audio and photography to report and produce news and documentary stories for the web and other distribution platforms. (3 hours lecture)

*Prerequisite:* Credit for or registration in JOUR 150 or JOUR 250 or consent of instructor

DA

The student learning outcomes are:

- Produce various news videos and short documentaries independently or in groups that meet professional journalistic standards and ethics
- Generate story ideas; research, gather and organize information; follow through on assignments; and meet deadlines
- Apply basic knowledge and skills of digital video production including cinematography, sound and editing
- Critically analyze news videos and documentaries produced by the mass media

### **JOUR 285V Newspaper Laboratory (1-3)**

Complete production of the student newspaper, including fact gathering, writing, layout, editing, and photography. May be repeated up to 6 credits.

*Prerequisite:* Credit for ENG 100. Credit for or registration in JOUR 205 or JOUR 250 or consent of instructor.

The student learning outcomes are:

- Apply basic journalistic concepts and principles to produce a range of articles that meet standards for publication, including readability, accuracy, news style and mechanics.
- Demonstrate a working knowledge of page design principles and software to produce pages for a tabloid publication.
- Apply knowledge of photography to take pictures using a digital camera, crop photos and adjust them using PhotoShop software.
- As part of a team, produce a monthly publication that meets journalistic standards for news value, readability, accuracy, objectivity, clarity, balance and fairness.
- Demonstrate an ability to generate story ideas, meet deadlines, gather and organize information, and follow through on assignments.

## Learning Skills

### **LSK 110 College Study Skills (3)**

This course assists students to deal more effectively with the rigors of the academic expectations of college. Students will carefully assess their work habits, attitudes, and learning styles and will learn specific strategies to achieve academic success. (3 hours lecture)

*Prerequisite:* Placement in ENG 21 or ENG 23 or higher or consent of instructor.

The student learning outcomes are:

- Analyze and evaluate one's own academic strengths and weaknesses in processing information, preparing for learning, textbook and lecture note taking techniques and strategies, and test taking skills.
- Apply various study skills strategies and techniques.
- Complete the required library research units in order to write a

short research paper involving strategies that include finding, evaluating, and documenting information from various sources.

## Linguistics

### **LING 102 Introduction to Language (3)**

An investigation of the nature and function of language, its sounds, structures and semantics, oral and written expression, acquisition and change. General linguistic principles applicable to all languages will be covered. We will learn ways of talking about language that will enable us to discuss language and understand what linguists do and say. (3 hours lecture)

*Prerequisite:* Credit for ENG 22 or ENG 23 or higher or consent of instructor.

DH

The student learning outcomes are:

- Examine and appreciate humanity's supreme achievement—human language—and its repercussions.
- Articulate an appreciation of human languages and how they work.
- Articulate the diversity of communication systems in daily lives.
- Examine and assess one's own language beliefs, capabilities, and learning.

## Management

### **MGT 120 Principles of Management (3)**

This course is a practical introduction to and study of management principles and practices. The student will learn the elements needed to manage effectively as well as better understand the decision making process in business. (3 hours lecture)

The student learning outcomes are:

- Describe the basic functions of management including planning, organizing, staffing, leading and controlling.
- Apply management skills in areas such as technical, human relations, administration, communication and problem solving.
- Discuss ethical dilemmas faced by managers and the social responsibilities of business.
- Develop strategies to reduce resistance to change

## Math

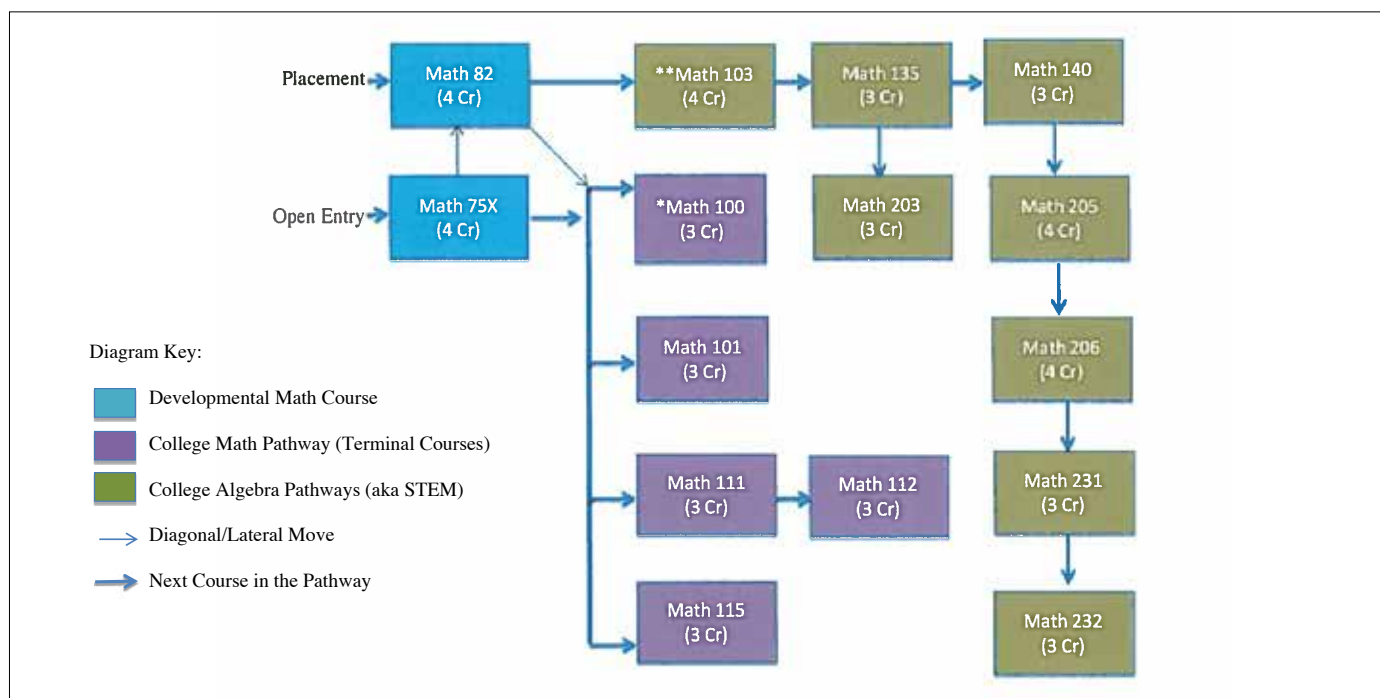
### **MATH 75X Introduction to Mathematical Reasoning (4)**

This course prepares students for MATH 100, MATH 101, MATH 111, and MATH 115. Course topics include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas with special emphasis on pattern recognition and problem solving. Additional topics may include set theory, inequalities, and quadratics. (4 hours lecture)

The student learning outcomes are:

- Solve applied mathematical problems, judge reasonableness of results, and communicate conclusions using appropriate terminology and symbols
- Recognize and express mathematical patterns in various forms and contexts
- Perform operations on real numbers
- Utilize precise mathematical language and symbols to

## Math Course Pathways (effective Fall 2016)



effectively communicate mathematics in written and/or oral form

### MATH 78 College Math Companion (1)

This course provides students concurrently enrolled in MATH 100, MATH 101, MATH 111, or MATH 115 with Just-In-Time support with special emphasis on pattern recognition and problem solving. Course topics are tailored to the concurrent course and may include ratio and percent, unit conversion, graphs, data interpretation, basic algebra, solving linear equations, and working with formulas. (1 hour lecture) (Grading is CR/NC)

*Prerequisite:* Satisfactory Placement Score

The student learning outcomes are:

- Demonstrate college-level mathematical reasoning skills.

### MATH 82 Algebraic Foundations (4)

This course covers elementary algebra topics. Topics include linear equations and inequalities, graphing, linear systems, properties of exponents, operations on polynomials, factoring, rational and radical expressions and equations, quadratic equations, and applications. (4 hours lecture)

*Prerequisite:* Satisfactory Placement, or a Grade of "C" or better in Math 21, Math 21B, Math 24, Math 28, or Math 75X.

The student learning outcomes are:

- Use algebraic techniques to analyze and solve applied problems
- Graph linear and quadratic equations
- Solve equations, inequalities, and systems
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form

### MATH 88 College Algebra Companion (2)

Math 88 provides students with supplemental algebra instruction that directly supports the topics covered in Math 103. (2 hours lecture) (Grading is CR/NC)

*Prerequisite:* Satisfactory Placement Score

*Corequisite:* MATH 103

The student learning outcomes are:

- Demonstrate algebra skills needed to be successful in Math 103

### MATH 100 Survey of Mathematics (3)

An introduction to quantitative and logical reasoning for the nonscience/nonmathematics major. The question, "What is mathematics?" is explored, while focusing on mathematical systems or models, cultivating an appreciation for mathematics as an aesthetic art, and developing skills in problem-solving and analysis. (3 hours lecture)

*Prerequisite:* "C" or better in MATH 25, 26, 28, 29, 75X or higher or equivalent, co-requisite enrollment in MATH 78, satisfactory math placement test score, or consent of instructor.

FS

The student learning outcomes are:

- Utilize basic properties and/or operations related to the topics covered in the course.
- Employ symbolic/mathematical techniques to solve applied problems.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

## Course Descriptions

### **MATH 101 Mathematics for Veterinary Assistants & Technicians (3)**

An introduction to clinical calculations used in veterinary medicine. Topics include the application of mathematical skills to solve applied problems in veterinary nursing and pharmaceutical dispensing with emphasis on dosage, concentration, dilution and drip rates. Also included is mathematical and laboratory terminology. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields. (3 hours lecture)

*Prerequisite: "C" or better in MATH 25, 26, 28, 29, 75X or higher or equivalent, satisfactory math placement test score.*

The student learning outcomes are:

- Define terminology and abbreviations used in measurements and convert from one measurement to another with accuracy on the fly.
- Understand oral and written requests to calculate dosages accurately and quickly.
- Use mathematical formulas to calculate stock solutions to a desired concentration with accuracy.
- Demonstrate proficiency in calculating infusion rates for fluid replacement therapy and for surgery.
- Identify parts of a basic graph to understand medical charts.
- Identify basic statistical terms to make informed decisions from numerical data and information.
- Demonstrate proficiency in performing operations with fractions, decimals, percentages, ratios and proportions without the use of a calculator.

### **MATH 103 College Algebra (4)**

Linear equations, inequalities, systems of equations, polynomials, functions, fractional expressions and equations, exponents, powers, roots, quadratic equations and functions; rational, exponential and logarithmic functions. (4 hours lecture)

*Prerequisite: "C" or better in MATH 25, 26, 29, 82 or equivalent, co-requisite enrollment in MATH 88, satisfactory math placement test score, or consent of instructor.*

FS

The student learning outcomes are:

- Graph or interpret algebraic relations that are relevant to the topics in this course.
- Employ algebraic techniques to find the solutions to equations or inequalities, or systems of equations or inequalities appropriate to the level of this course.
- Use algebraic techniques to analyze and solve applied problems.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

### **MATH 111 Mathematics for Elementary Teachers I (3)**

Math 111 is the first of a two-course sequence designed to give prospective elementary education majors the depth of understanding necessary to teach mathematics in the elementary classroom. Topics include number (natural numbers, integers, fractions, and real numbers) and operations, sets, patterns, functions and algebra. Emphasis will be on communication, connections and problem solving, representations, and reasoning and proof.

(3 hours lecture)

*Prerequisite: "C" or better in Math 25, 26, 28, 29, 75X, or higher or equivalent, satisfactory math placement test, and grade of C or better in ENG 22 or ENG 23 or placement in ENG 100.*

The student learning outcomes are:

- Explain and utilize numbers, ways of representing numbers, relationships among numbers, and number systems.
- Explain the meaning of operations and how they relate to each other.
- Describe various types of patterns and functional relationships.
- Utilize symbolic forms to represent, model, and analyze mathematical situations to solve problems.
- Communicate mathematical ideas verbally, in writing, and through mathematical representations to various audiences.

### **MATH 112 Mathematics for Elementary Teachers II (3)**

Math 112 is the second of a two-course sequence designed to give prospective elementary education majors the depth of understanding necessary to teach mathematics in the elementary classroom. Topics include the representation of and operations on the natural numbers and properties of those operations. Emphasis will be on communication, connections and problem solving, representation and reasoning. (3 hours lecture)

*Prerequisite: Grade of "C" or better in MATH 111.*

FS

The student learning outcomes are:

- Communicate about arithmetic operations using set theory and counting in written and/or oral form.
- Explain the relationship between addition and subtraction; and between multiplication and division.
- Represent operations of addition and multiplication using translations along a line and composition of translations.
- Interpret new functions created by magnification and reflection.
- Discuss primes and their relationship to composite numbers.
- Interpret a rational number as a ratio when connected to probabilities, or as a rate such as speed and averages.
- Use dimensional analysis to help solve a problem.
- Define an irrational number and explain the significance of specific irrational numbers such as pi.

### **MATH 115 Introduction to Statistics and Probability (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 in order to solve problems. (3 hours lecture)

*Prerequisite: Grade of "C" or better in Math 25, 26, 28, 29, 75X or higher or equivalent, satisfactory math placement test score, or consent of instructor.*

The student learning outcomes are:

- Demonstrate proficiency in graphing, statistical data, calculating measures of central tendency, measures of variation, percentiles, correlation coefficients, and regression line.
- Interpret statistical information provided in graphs, in summary measures (central tendency, dispersion, percentile), and in the correlation coefficient.



## Course Descriptions

- Solve probability problems involving compound events, independent events, mutually exclusive events, and conditional probability.
- Calculate and interpret probabilities for normal or binomial distributions, including the use of the Central Limit Theorem.
- Demonstrate the use of inferential statistics.
- Utilize appropriate statistical terminology and mathematical symbols to effectively communicate mathematics in written and/or oral form.

### **MATH 135 Precalculus: Elementary Functions (3)**

Investigates linear, quadratic, polynomial, rational, exponential, logarithmic functions, and related topics. This course is the first part of the precalculus sequence (3 hours lecture)

*Prerequisite:* Grade of "C" or better in MATH 103 or equivalent, satisfactory math placement test score, or consent of instructor.

FS

The student learning outcomes are:

- Demonstrate proficiency in writing math expressions into different forms and finding the solutions to an equation and inequality using complex numbers where appropriate, by applying formal rules or algorithms.
- Use appropriate symbolic techniques (such as algebraic techniques) to analyze and solve applied problems, and in the critical evaluation of evidence.
- Interpret equations geometrically and use geometrical information to obtain the equation of lines and circles.
- Utilize function concepts.
- Draw the graphs of functions utilizing behavior information and/or transformations.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form and in the presentation of evidence.
- Traverse the bridge from theory to practice by using theorems related to polynomial functions and demonstrate proficiency in working with polynomial functions.
- Apply concepts and properties of the logarithm functions.
- Understand the concept of proof as a chain of inferences by doing some proofs.

### **MATH 140 Precalculus: Trigonometry and Analytic Geometry (3)**

Studies trigonometric functions, analytic geometry, polar coordinates, vectors, and related topics. This course is the second part of the precalculus sequence. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in MATH 135 or equivalent, satisfactory math placement test score, or consent of instructor.

FS

The student learning outcomes are:

- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form and in the presentation of evidence.
- Traverse the bridge from theory to practice by applying concepts and properties of trigonometry, vectors, and complex numbers to solve problems.
- Analyze and graph trigonometric functions, inverse

trigonometric functions, conics, polar equations, and parametric equations.

- Apply formal rules or algorithms by demonstrating proficiency in performing operations with trigonometric expressions and equations.
- Use appropriate symbolic techniques to analyze and solve application problems requiring the use of trigonometry and analytical geometry and in the critical evaluation of evidence.
- Understand the concept of proof as a chain of inferences by demonstrating proficiency at proving trigonometric identities and other types of proofs.

### **MATH 203 Calculus for Business and the Social Sciences (3)**

Basic mathematical concepts, topics in differentiation and introductory integration of algebraic, exponential and logarithmic functions. Related applications to management, finance, economics and social science will be considered. (3 hours lecture)

*Prerequisite:* Grade of "B" or better in MATH 103, "C" or better in MATH 135 or equivalent, satisfactory math placement test score or consent of instructor.

FS

The student learning outcomes are:

- Understand and use the intuitive definition of limits and apply them in limit calculations and in determining continuity.
- Demonstrate proficiency in determining derivatives and apply different interpretations of the derivative.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.
- Use calculus techniques to analyze and solve applied problems.
- Use derivatives to analyze graphs and sketch graphs.
- Demonstrate proficiency in determining antiderivatives and integrals.
- Utilize integration in applied problems.
- Utilize techniques of differentiation with functions of several variables.

### **MATH 205 Calculus I (4)**

Basic mathematical concepts, topics in differentiation, and introductory integration of algebraic and trigonometric functions. Applications of differentiation and integration will be demonstrated. (4 hours lecture)

*Prerequisite:* Grade of "C" or better in MATH 140 or equivalent, satisfactory math placement test score, or consent of instructor.

FS

The student learning outcomes are:

- Understand and use the formal and intuitive definitions of limits and apply them in limit calculations and in determining continuity.
- Demonstrate proficiency in determining derivatives and apply different interpretations of the derivative.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.
- Use calculus techniques to analyze and solve applied problems.

## Course Descriptions

- Use derivatives to analyze and sketch graphs and/or to solve related problems.
- Demonstrate proficiency in determining antiderivatives and integrals.
- Utilize integration in applied problems.

### **MATH 206 Calculus II (4)**

Differentiation and integration concepts of trigonometric, exponential, logarithmic and hyperbolic functions. Integration implements, infinite series, and applications of derivatives and integrals are also featured. (4 hours lecture)

*Prerequisite: Grade of "C" or better in MATH 205 or equivalent or consent of instructor.*

The student learning outcomes are:

- Apply limits, derivatives, and integrals to inverse functions, logarithmic, exponential, hyperbolic, and inverse trigonometric functions.
- Utilize various techniques of integration.
- Determine whether a sequence or series converges.
- Use concepts from the course to solve problems.
- Solve differential equations.
- Utilize precise mathematical language and symbols to effectively communicate mathematics in written and/or oral form.

### **MATH 231 Calculus III (3)**

Vector algebra, vector-valued functions, differentiation in several variables, and optimization. (3 hours lecture)

*Prerequisite: Grade of "C" or better in MATH 206 or equivalent.*

The student learning outcomes are:

- Analyze and apply principles, concepts, and properties from algebra, geometry, trigonometry, and calculus to solve problems.
- Apply concepts and calculus properties of Cartesian space coordinates and vectors.
- Apply principles and concepts from calculus to multivariable functions.
- Use various strategies from this course to solve problems.
- Utilize precise mathematical language and symbols and effectively communicate in written and/or oral form.

### **MATH 232 Calculus IV (3)**

Math 232 is the fourth course in the calculus sequence. Topics include multiple integrals, line integrals, Green's Theorem, surface integrals, Stokes' Theorem, Gauss' Theorem and differential equations. (3 hours lecture)

*Prerequisite: "C" or better in Math 231 or equivalent or consent of instructor.*

The student learning outcomes are:

- Compute multiple integrals in various coordinate systems.
- Use multiple integrals or vector calculus techniques to solve application and/or theoretical problems.
- Solve basic differential equations and applications.
- Utilize precise mathematical language and symbols and effectively communicate in written and/or oral form.

## Meteorology

### **MET 101 Introduction to Meteorology (3)**

Introduction to Meteorology (MET 101) studies basic atmospheric physics, Sun-Earth-atmosphere-ocean-human interrelationships, major weather systems and forecasting, with special emphasis on Hawai'i. For both science and non-science majors and prospective science teachers. (3 hours lecture)

DP

The student learning outcomes are:

- Describe the components, processes and resulting weather patterns in the atmosphere.
- Interpret the components of weather maps, and forecast weather.
- Apply the scientific method and theories and concepts of meteorology (atmospheric physics) to explain major weather systems.
- Explain critically the relationship between humans and the atmospheric environment.

## Microbiology

### **MICR 130 General Microbiology (3)**

Fundamentals of microbiology, growth, development, and classification of bacteria, viruses, protozoa, fungi and algae; roles of microorganisms in the environment and human affairs: medical microbiology, immunology, and applied microbiology for food sanitation and public health. (3 hours lecture)

DB

The student learning outcomes are:

- Describe the main morphological characteristics, growth, reproduction and classification of algae, bacteria, fungi, protozoa, viruses and helminthes.
- Discuss etiologies, reservoirs of infection, modes of transmission, signs, symptoms, and treatments and/or methods of prevention of common infectious diseases of humans.
- Describe the basic principles of molecular genetics as they relate to cell division, mutation, genetic engineering, protein synthesis, bacterial virulence, and antibiotic resistance.
- Describe pathogenicity, immunity and allergies.

### **MICR 140 General Microbiology Laboratory (2)**

Laboratory course illustrating fundamental techniques and concepts of microbiology, such as microscopic observations, aseptic transfer, microorganism classification and identification, environmental factors influencing microorganisms, biochemistry of microorganisms, ecological microbiology, and medical microbiology. This course is designed to complement MICR 130. Primarily for students in nursing, dental hygiene and nutrition. Science laboratory course. (4 hours laboratory)

*Prerequisite: Credit for or registration in MICR 130; Placement into MATH 24, 25, 26, 28, 29, 82 or higher.*

DY

The student learning outcomes are:

- Operate equipment used in microbiology laboratory.
- Prepare growth media.
- Perform aseptic transfer.

- Identify microorganisms using morphological and physiological tests.
- Follow biosafety procedures.
- Produce lab reports using the standard scientific format.

## Music

### MUS 106 Music Appreciation (3)

Elements, styles, and forms of music, from the listener's standpoint. Focus on classical music literature. Concert attendance and written critique required for two live performances during semester. (3 hours lecture)

DH

The student learning outcomes are:

- Identify masterpieces of classical music repertoire.
- Distinguish the essential compositional characteristics of the several stylistic periods in music/art history and representative composers from each period, which help place unfamiliar repertoire into familiar periods.
- Contrast/compare music of any type (i.e., classical, popular, ethnic, seasonal) for texture, form, melodic contour, harmonic orientation and time of composition.
- Compare/contrast the live performances seen during the semester.
- Define the elements that make up classical performance tradition and etiquette.

### MUS 107 Music in World Cultures (3)

Music as organized sound and as a cultural object. Role of music in various societies: ancient and modern, sophisticated and non-sophisticated, child and adult, Western and non-Western. Representative styles and regional characteristics viewed in terms of musical characteristics and related cultural factors; a conceptual introduction to music and culture. Attendance at one ethnic performance is required. (3 hours lecture)

DH

The student learning outcomes are:

- Describe the role of music in different cultures.
- Describe the distinctive aural features and music aesthetics of a music culture.
- Describe the historical, religious, social, and political aspects of a society that contribute to the development of a music culture.
- Affirm the validity of other music traditions.
- Contrast/compare one's own music within the broader context of other music traditions.

### MUS 108 Fundamentals of Western Music (3)

A basic music theory course. Emphasis on learning basic concepts involved in reading and writing music. Notation and reading of simple and compound rhythm, pitch, intervals and triads. Application to performance. (3 hours lecture)

DA

The student learning outcomes are:

- Identify and write the basic components of Western music notation.
- Apply basic theoretical components of Western music notation

to written examples of music.

- Notate and read basic melodic and rhythmic patterns in both simple and compound meters.
- Use the components of music in both the performance and creation of music.
- Compose and harmonize two melodies of at least 32 measures.

### MUS 114 College Chorus (1)

Rehearsal and performance of classical, popular, and Polynesian/ethnic choral literature. Elementary Polynesian dance may be included as part of performance. Open to all students. No previous choral experience required. Extra curricular concert attendance required. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). May be repeated up to 7 credits. (3 hours rehearsal)

DA

The student learning outcomes are:

- Read pitch and rhythmic notation in simple choral parts.
- Learn choral parts using basic music elements.
- Demonstrate the importance of ensemble singing in terms of musicianship and performance practice by learning all choral parts thoroughly and attending all rehearsals and performances.
- Experience the transformative nature of choral performance in the human experience.

### MUS 121B Voice 1 (2)

Performance class designed for students with little or no vocal experience. Deals with vocal production and literature for voice. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). (1 hour lecture, 2 hours rehearsal)

DA

The student learning outcomes are:

- Demonstrate basic vocal techniques of physical alignment, breath support, breath control, and tone production in performances of several songs.
- Apply basic concepts of rhythm and pitch accuracy in performances.
- Employ basic concepts of sight reading in learning music for performance.
- Perform in class and the semester recital with some confidence.

### MUS 121C Piano 1 (2)

Basic principles of performance. Relevant problems in piano literature at elementary level. MUS 121C, 122C must be taken in sequence. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). (1 hour lecture, 2 hours rehearsal)

DA

The student learning outcomes are:

- Identify and write the basic concepts of music notation.
- Demonstrate knowledge of basic concepts in accurate performances.
- Demonstrate knowledge of the history of piano development.
- Perform in class and the semester recital with some confidence.

## Course Descriptions

### MUS 121D Beginning Classical Guitar (2)

Basic principles of classical guitar performance; relevant problems in literature. (1 hour lecture, 2 hours rehearsal)

DA

The student learning outcomes are:

- Identify and write the basic concepts of music notation.
- Apply knowledge of basic concepts in accurate performances.
- Demonstrate knowledge of the history of classical guitar development.
- Perform with growing confidence in class performances.

### MUS 121F Beginning Slack Key Guitar (2)

Basic principles of performance; relevant problems in literature. Student learns to play two slack key tunings. This course is intended for students with little or no background in this style of guitar playing. Ability to read music is not required. May be repeated up to 6 credits. (3 hours lecture/studio)

DA

The student learning outcomes are:

- Demonstrate knowledge of the history of slack key guitar development.
- Apply knowledge of basic concepts in accurate performances.
- Use knowledge of slack key techniques and music concepts (music theory) to complete in-class recitals.
- Perform with growing confidence in class performances.

### MUS 121Z Beginning 'Ukulele (2)

Basic principles of performance; relevant problems in literature. Introductory course in 'ukulele. Focus on principles of performance. Course is intended for students with little or no experience in playing the 'ukulele. May be repeated up to 6 credits. (1 hour lecture, 2 hours rehearsal)

DA

The student learning outcomes are:

- Demonstrate knowledge of the history of 'ukulele development.
- Apply knowledge of basic concepts in accurate performances.
- Strum chords for three (3) Hawaiian songs (in different keys) that demonstrate an understanding of major scale (music theory) applications.
- Perform with growing confidence in class performances.

### MUS 122B Voice 2 (2)

Performance class designed for students with previous vocal experience or training. Deals with vocal production and literature for voice. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). (1 hour lecture, 2 hours rehearsal)

*Prerequisite: Credit for MUS 121B or consent of instructor.*

DA

The student learning outcomes are:

- Discuss the origin and development of vocal music.
- Demonstrate intermediate level vocal techniques of diction, tone production, and breath control in performance situations.
- Sight read and learn music at an intermediate level.
- Perform with greater confidence in public performances.

### MUS 122C Piano 2 (2)

Designed for further study of principles and basic skills of piano performance established in first semester piano. Continues the group participation chord approach with greater emphasis on ensemble playing and improvisation. MUS 121C and 122C must be taken in sequence. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). (1 hour lecture, 2 hours rehearsal)

*Prerequisite: Credit for MUS 121C.*

DA

The student learning outcomes are:

- Incorporate additional theoretical concepts in the performance of piano music.
- Display intermediate level concepts in performances.
- Sight read music with increasing accuracy and musicianship.
- Exhibit greater confidence in performing level-two repertoire.

### MUS 122F Intermediate Slack Key Guitar I (2)

Intermediate slack key guitar: level I. Student learns to play solos in C tunings and intermediate solos at level I in tunings learned in the elementary class. May be repeated up to 4 credits. (3 hours lecture/studio)

*Prerequisite: Credit for MUS 121F or consent of instructor.*

DA

The student learning outcomes are:

- Incorporate additional theoretical concepts in the performance of slack key music.
- Demonstrate knowledge of intermediate level concepts on performances.
- Sight read tablature notation with increasing accuracy and musicianship.
- Exhibit greater confidence in performing level-two repertoire.

### MUS 122Z Intermediate 'Ukulele (2)

Continuation of MUS 121Z. Increased emphasis on 'ukulele literature. Focus on principles of performance. Emphasis on ensemble playing. (3 hours lecture/studio)

*Prerequisite: Grade of "C" or better in MUS 121Z or consent of instructor.*

DA

The student learning outcomes are:

- Be able to perform a traditional mele (song) in three different keys.
- Be able to keep two (2) solos, one of which will be a chord solo.
- Be able to strum accompaniment for a song that has six (6) chords in it.
- Be able to apply the principles and basic skills of 'ukulele performance to 'ukulele literature.

### MUS 130F Slack Key Guitar Ensemble (2)

Continuation of Music 122F. Increased emphasis on slack key literature, techniques, and tunings. Advanced intermediate techniques of slack key guitar as applied to ensemble playing. (3 hours lecture/studio)

*Prerequisite: Credit for MUS 122F.*

DA

The student learning outcomes are:



- Analyze repertoire for articulation, phrasing and fingering difficulties.
- Incorporate intermediate level theoretical and technical concepts in the performance of chosen repertoire.
- Sight read tablature notation with greater accuracy and musicianship.
- Exhibit confidence in performing intermediate-level repertoire.

### **MUS 166 Popular Music in America (3)**

A survey of Pop Music (including Blues, Jazz, Rock and Folk), in the United States in the twentieth century. Activities will include listening to recordings, writing lyrics and tunes and learning various aspects of the business of music. Field trips and concert attendance required. (3 hours lecture)

DH

The student learning outcomes are:

- Describe the role of music in different communities.
- Describe and compare the distinctive aural features and music aesthetics of the various style of popular music.
- Describe the historical, religious, social and political aspects of a society that contribute to the development of diverse musical styles.
- Compare/contrast different styles of popular music.

### **MUS 177 Introduction to Hawaiian Music (3)**

A survey of Hawaiian music from Polynesian origins and pre-contact traditional forms to acculturated and contemporary forms and expressions including vocal, instrumental and dance music in their social, cultural and religious contexts. (3 hours lecture)

DH

The student learning outcomes are:

- Identify and define the basic concepts, terminology and distinguishing features of Western European and Hawaiian music.
- Identify the distinguishing features of indigenous and post-contact Hawaiian music and musical instruments.
- Explain or discuss the functions of music in pre-contact Hawaiian society and in contemporary Hawai'i.
- Identify and discuss important events and personalities in the evolution of Hawaiian music.
- Put theories of Hawaiian music into practice in vocal and instrumental performances.

### **MUS 221C Piano 3 (2)**

Continuation of MUS 122C. Increased emphasis on piano literature up to the intermediate level. MUS 221 and MUS 222C must be taken in sequence. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). (1 hour lecture, 2 hours rehearsal)

*Prerequisite: Credit for MUS 122C or consent of instructor.*

DA

The student learning outcomes are:

- Analyze repertoire for articulation, phrasing and fingering difficulties.
- Incorporate intermediate level theoretical and technical concepts in the performance of chosen repertoire.
- Sight read music with greater accuracy and musicianship.
- Exhibit confidence in performing intermediate-level repertoire.

### **MUS 222C Piano 4 (2)**

Continuation of MUS 221C. Increased emphasis on piano technique and literature up to the intermediate level. Introduction to accompanying. MUS 221C and MUS 222C must be taken in sequence. Student will complete one level of MusicLab Melody (8 modules of 10 quizzes each). (1 hour lecture, 2 hours rehearsal)

*Prerequisite: MUS 221C*

DA

The student learning outcomes are:

- Analyze and discuss the form, articulation, harmonic rhythm, and phrasing of performance repertoire.
- Provide logical fingering for repertoire pieces when needed.
- Apply advanced theoretical and technical concepts to performance of chosen repertoire.
- Perform with poise and confidence in front of an audience.

### **MUS 240 Introduction to Digital Music Production (3)**

Introduction to digital music and sound production on the Macintosh platform: MIDI sequencing, audio recording, music arranging, editing, mixing and mastering; preparing audio files for CD, video and web applications; sound synthesis and programming using virtual instruments. (3 hours lecture)

*Prerequisite: MUS 108, 121 (alpha) or 253; or consent of instructor.*

*Recommended Preparation: Basic Keyboard (piano) skills, computer (Mac) skills.*

DA

The student learning outcomes are:

- Use MIDI sequencing and audio recording software, and/or notation software, as tools for music composition, arranging and performance.
- Apply basic skills in MIDI sequencing and editing, and digital audio recording and editing to audio mixing and mastering projects.
- Prepare audio files for CD burning, and video and web applications.
- Apply understanding of sound synthesis to create original sounds for music projects.
- Transfer skills to other MIDI sequencing and digital audio software programs across PC and Mac platforms.

### **MUS 241 Digital Music Production II (3)**

Continuation of principles and skills introduced in MUS 240. Digital music composition and audio production on the Macintosh platform with emphasis on advanced MIDI and mixing techniques, audio editing, sound synthesis, and programming of virtual instruments and effects. (3 hours lecture)

*Prerequisite: MUS 240 or consent of instructor.*

The student learning outcomes are:

- Advanced use of MIDI sequencing and audio recording software, or notation software, as tools for music composition, arranging and performance.
- Apply advanced skills in MIDI sequencing and editing, and digital audio editing to music composition projects.
- Effectively mix, bounce and prepare audio files for appropriate media and applications.
- Create and edit original sounds and effects for music projects.

## Course Descriptions

- Transfer skills to other MIDI sequencing and digital audio software programs across PC and Mac platforms.

### **MUS 253 Elementary Music In Action (3)**

Deals with musical concepts, philosophy & pedagogy; the use of media, singing, movement, and instruments; and resources for an active elementary classroom. Presents correlation between music and brain development in early childhood. Intended for Education majors. Music is a vital stimulus to the developmental process and contributes to the emergence of positive self-esteem. Elementary education candidates learn to apply appropriate strategies in order to provide music making as part of everyday classroom activities. (3 hours lecture)

DA

The student learning outcomes are:

- Identify and write the basic components of Western music notation.
- Apply basic theoretical components of Western music notation to written examples of music.
- Notate and read basic rhythm and melodic patterns, both in simple and compound meters.
- Apply basic knowledge of basic theoretical concepts to performance on various instruments.
- Teach a mini model lesson, demonstrating a grade-appropriate musical concept.
- Harmonize simple melodies.

### **MUS 296 Special Topics in Music (3)**

Students will investigate important topics in music, such as specific people, genres, or periods. Classes may include a performance component. Specific course information will be made available in the schedule of classes. May be repeated up to 9 credits with different topics. (3 hours lecture)

*Recommended Preparation: Introductory MUS class.*

The student learning outcomes are:

- Identify the important concepts and facts particular to the selected course topic.
- Analyze and interpret the nature and significance of the selected course topic.
- Investigate connections between the selected course topic and contemporary events and issues.

## Oceanography

### **OCN 101 Introduction to the Marine Option Program (1)**

This course provides an overview of statewide issues and organizations involved with ocean and freshwater activities, including management, education, research and business. It also provides an orientation to the Marine Option Program (MOP) and reviews the requirements of the MOP certificate. The course explores opportunities for internships, projects and careers related to water environments. The course will present guidelines on proposal writing, project implementation, data collection and interpretation, and final report preparation and presentation. This course is taught via HITS interactive television with participation of students and faculty throughout the UH system. (1 hour lecture)

*Recommended Preparation: "C" or better in MATH 24, 25, 26, 28, 29,*

*75X or higher.*

The student learning outcomes are:

- Develop a curriculum/program to facilitate the completion of a Marine Option Program (MOP) Certificate at WCC and other MOP campuses.
- Describe the ocean and freshwater related activities that are being undertaken statewide and on other UH campuses.
- Find information about statewide/nationwide/international projects, organizations, and career opportunities relating to marine and freshwater systems.
- Find information about internship and scholarship opportunities relating to water environments.
- Identify an appropriate MOP project topic.
- Identify appropriate mentors and experts in the project area.
- Complete a written MOP project proposal.
- Prepare and deliver an oral presentation.

### **OCN 120 Global Environmental Challenges (3)**

Scientific approach to evaluating human-caused environmental challenges and their potential solutions. (3 hours lecture)

*Recommended Preparation: Basic pre-college level math, chemistry, physics.*

DP

The student learning outcomes are:

- Apply scientific principles and methods to describe natural Earth system interactions and human impacts on the environment.
- Solve very basic problems involving chemistry and physics, and read and create graphs of data.
- Apply scientific principles and methods to compare causes of environmental problems and impacts of potential solutions to environmental challenges.
- Apply scientific principles and reasoning to critically evaluate proposed explanations for global environmental challenges.

### **OCN 201 Science of the Sea (3)**

An introductory course to oceanography covering the dimensions of the science of oceanography, the physical and chemical properties of sea water, waves, tides, currents, life in the ocean, and the geologic structure of the ocean floor, environmental concerns, and human use of the oceans. (3 hours lecture)

DP

The student learning outcomes are:

- Understand how the scientific method works, how it has been applied in Earth science, and how it differs from other ways of acquiring knowledge.
- Articulate how the Earth is an integrative system across many scientific disciplines.
- Understand the internal structure of the Earth and the dynamic processes of plate tectonics that shape its surface, including seafloor spreading, subduction, and continental drift.
- Understand the causes of rising sea level and its impacts on coastal areas, including erosion and beach loss.
- Identify the major pathways of chemicals to the oceans and the effect that biological processes have on redistributing and removing chemicals from the oceans.

- Describe the major processes that cause the deep and shallow circulation of water in the oceans.
- Identify the major marine habitats, the types of organisms that live in those habitats, and give examples of how organisms are adapted to their habitat.
- Describe the types of interactions that occur among organisms in the marine food web and between organisms and their environment.

### **OCN 201L Science of the Sea Laboratory (1)**

Experiments, computer exercises and field trips demonstrating the geological, physical, chemical and biological principles, and equipment, of earth and ocean sciences. (3 hours laboratory)

*Prerequisite:* Credit for or registration in OCN 201 or equivalent preparation or consent of instructor.

*Recommended Preparation:* High school algebra and chemistry; ability to use a computer.

DY

The student learning outcomes are:

- Develop a practical understanding of the principals of oceanography.
- Use the methodology of marine biology and oceanography to define and solve problems independently and collaboratively.
- Use a wide variety of laboratory and field techniques with accuracy, precision and safety.
- Accurately interpret biological and oceanographic information.
- Demonstrate proficient library, mathematical and computer skills in data gathering and analysis.
- Apply scientific concepts to environmental and societal issues.
- Apply their learning in an off-campus professional setting.

### **OCN 260 Pacific Surf Science and Technology (3)**

Pacific Surf Science and Technology is a lecture-based course that showcases scientific and industry aspects of the surfing world for surfers and non-surfers. The course takes a scientific approach to understanding the natural processes that create and influence waves and surf conditions, while also introducing many ocean safety concepts relating to the environment and the popularity of ocean recreation. A weather and surf journal along with weekly campus field excursions dedicated to studying weather phenomena adds an essential experiential component to the course. (3 hours lecture)

*Recommended Preparation:* Ability to access information from the Internet.

The student learning outcomes are:

- Discuss the basic principles of meteorology, oceanography, and geology as they apply to the creation and shaping of waves and surf.
- Predict surf conditions using Internet web sites and local weather station reports.
- Compare and contrast past and present surfboard technology and production.
- Apply the principles of design, production, and retail marketing within surfing related industries.
- Assess the various multimedia applications related to surfing.
- Demonstrate water safety issues related to surfing.
- Apply the basic techniques of surfing.
- Maintain logs of weather and surf observations to use in future

forecasts.

### **OCN 260L O'ahu Surf Science and Technology Lab (1)**

OCN 260L is a field lab designed to run concurrently with OCN 260, Pacific Surf Science and Technology. The course presents the surfing world through laboratory and field activities, including surfing demonstrations and instruction, learning water safety techniques, studying board design at surfboard manufacturing shops, and speaking with local industry professionals. Meteorology and surf forecasting techniques are covered through onsite weather observation activities, and physical processes involved in shaping waves as they approach a shoreline will be examined through several coastal studies. (3 hours laboratory)

*Prerequisite:* Credit for or registration in OCN 260.

The student learning outcomes are:

- Distinguish between pre-historic, traditionally built papa he'e nalu, historic-era, and modern surfboards.
- Outline the procedures involved in surfboard production.
- Operate safely a surfboard using the basic techniques of surfing.
- Access information on and identify local weather phenomena and ocean/surf conditions around O'ahu.
- Describe at least five ocean and surf industries.
- Identify wave-generating facilities.
- Maintain a journal of surfing experiences.

## **Pacific Islands Studies**

### **PACS 108 Pacific Worlds: An Introduction to Pacific Islands Studies (3)**

This course situates Hawai'i in the larger context of Oceania and exposes students to issues, themes, values, and practices across the region. It also introduces students to the geography, societies, histories, cultures, and arts of Oceania, including Hawai'i. This course combines lecture and discussion that emphasize Pacific Islander perspectives and experiences. (3 hours lecture)

DS

The student learning outcomes are:

- Locate and name the island groups, geographic regions, and political entities of Oceania.
- Describe social and cultural similarities and differences among Pacific Island societies.
- Identify themes in the works of Pacific Island artists and writers.
- Discuss contemporary social, political, economic, cultural, and environmental issues in the Pacific Islands.
- Explain significant themes in indigenous, colonial, and postcolonial histories of the Pacific Islands.

## **Pharmacology**

### **PHRM 203 General Pharmacology (3)**

Covers a wide range of drugs with emphasis on sites and mechanism of action, toxicity, fate and uses of major therapeutic agents. This course is intended for students in nursing and allied health fields. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in ZOOL 141 and ZOOL 142.

*Recommended Preparation:* College level chemistry.

DB

## Course Descriptions

The student learning outcomes are:

- Describe the basic mechanisms of drug action.
- Demonstrate knowledge of the terminology and special concepts useful in the study of pharmacology.
- Describe how differences between individuals govern their response to drugs.
- Define how drugs are processed and biotransformed by the body.
- Identify frequent complications and side effects associated with the major drug classes.
- Describe significant interactions between drugs.
- Use information from the pharmacokinetics of a specific drug to determine dosing schedules and best route of drug administration.
- State the therapeutic uses for each major drug group.

## Philosophy

### PHIL 100 Introduction to Philosophy: Survey of Problems (3)

Great philosophical issues, theories, and controversies. Course will focus on issues such as the problem of determinism, the problem of induction, the problem of distributive justice, the problem of the highest good, and the problem of the function of government. (3 hours lecture)

DH

The student learning outcomes are:

- Analyze contemporary issues and events using philosophical concepts and theories.
- Defend a position on a philosophical problem in philosophy.
- Identify important individuals, events, theories, and concepts in Western philosophy.
- Apply critical thinking skills (i.e. clarify concepts, raise normative questions, evaluate ideas presented in the text and handouts, and identify philosophical issues and concerns).

### PHIL 101 Introduction to Philosophy: Morals and Society (3)

Social and individual values, obligations, rights, and responsibilities. Course will cover normative theories and their applications to business, medicine, ethics and sexual relations. (3 hours lecture)

*Recommended Preparation: College level reading ability.*

DH

The student learning outcomes are:

- Recognize the major views that have defined the Western debate on ethical matters to include: virtue ethics, teleological theory, and deontological theory.
- Use logical reasoning and ethical concepts to analyze contemporary ethical problems.
- Defend a position on a fundamental problem in ethics.
- Compare, contrast, and evaluate virtue ethics, teleological theory, and deontological ethics in terms of their respective views of (a) human nature, (b) the nature of goodness, (c) the good life.

### PHIL 102 Introduction to Asian Philosophy: Asian Traditions (3)

Introductory course in selected schools of Asian thought. Universal issues/problems examined from Asian perspective. Focus will be on Indian, Chinese, and Japanese traditions. (3 hours lecture)

DH

The student learning outcomes are:

- Compare, contrast, and evaluate Indian, Chinese, Japanese, and European thought in terms of their respective views of (a) human nature, (b) the nature of goodness, (c) the good life.
- Identify and discuss contributions of schools of Asian philosophy and the influence of each on the other through a historical perspective.
- Discuss terms and concepts like "satori", "anatta", "jen" and evaluate their relevance (significance) for the West.
- Analyze Indian, Chinese, and Japanese thought in terms of (a) methodology, metaphysics, and ethics in order to better understand Asian concerns.

### PHIL 110 Introduction to Logic (3)

A study of the foundations and development of rational thought and communication and their applications. Includes analysis of deductive reasoning, formal and informal fallacies, and the use of symbolic systems. (3 hours lecture)

FS

The student learning outcomes are:

- Recognize fallacies of relevance, presumption, and ambiguity.
- Employ rules of logic in deductive analysis.
- Construct truth tables for deductive analysis.
- Use symbolic systems for deductive analysis.

### PHIL 111 Introduction to Inductive Logic (3)

Introduction to the theory of arguments based on probabilities and to the theory of decision-making in the context of uncertainty. (3 hours lecture)

*Recommended Preparation: Credit in PHIL 110*

The student learning outcomes are:

- Correctly classify data and variables.
- Create and interpret various graphs.
- Calculate and interpret descriptive statistics, including the mean, median, and mode.
- Construct and interpret point and interval estimates.

### PHIL 211 Ancient Philosophy (3)

The philosophical traditions of Greece and Rome between the 5th century BCE and the 5th century CE. Important works by four representative figures (two from Classical Greece and two from the Roman tradition). (3 hours lecture)

*Recommended Preparation: Completion of ENG 100 or equivalent.*

DH

The student learning outcomes are:

- Discuss terms and concepts like the "doctrine of homomensura" and the "doctrine of ideas or forms" and evaluate their relevance (significance) for modern times.
- Identify and discuss contributions of selected philosophers and the influence of each on the other through a historical



perspective.

- Trace some of the roots of present day thought through the application of concepts and points of view forwarded in this class.
- Discuss the major tenets of the “classical mind” as well as those that made up the “medieval mind” in order to characterize these periods of time in an orderly and meaningful pattern.

## Physics

### PHYS 122 Introduction to Science: Physical (3)

Characteristics of science, historical development of scientific concepts, and interactions with society illustrated by topics from physical sciences, with emphasis in physics and chemistry. Designed for non-science majors. (3 hours lecture)

*Prerequisite:* Credit in Math 25, 26, 28, 29, 75X or higher or equivalent.

*Corequisite:* PHYS 122L.

DP

The student learning outcomes are:

- Recognize the fundamental principles and philosophy upon which the scientific method is based.
- Apply the basic concepts of physics and chemistry.
- Apply the concept of conservation laws in problem solving.
- Apply basic mathematics to problems in physics and chemistry.
- Define the common terms used in the physical sciences.
- Assess the limitations of the scientific method and apply error analysis.
- Recognize the physical science principles as applied to everyday situations.

### PHYS 122L Introduction to Physical Science Lab (1)

Lab experiments illustrating topics and methods in the Physical Sciences with emphasis in Physics and Chemistry. Designed for nonscience majors. (3 hours laboratory)

*Prerequisite:* Credit for or registration in PHYS 122 or consent of instructor.

DY

The student learning outcomes are:

- Apply the scientific method to a selected group of topics in physics and chemistry.
- Collect, report and analyze data obtained in a laboratory setting in a manner exhibiting organization, proper documentation and critical thinking.
- Manipulate data and apply quantitative techniques, such as graphing and statistical analysis.
- Demonstrate a basic understanding of the standard instruments used in physics and chemistry.
- Identify environmental factors, which affect the outcome of an experiment or observation and apply basic error analyses techniques.

### PHYS 151 College Physics I (3)

A noncalculus one semester course for preprofessional or nonengineering majors. Study of the basic concepts of physics, including the fundamental principles and theories in mechanics, energy, and waves. (3 hours lecture)

*Prerequisite:* Credit for or registration in MATH 140 or higher, or consent of instructor.

*Corequisite:* PHYS 151L.

DP

The student learning outcomes are:

- Demonstrate a general understanding of the underlying philosophy of the physics, including the scientific method.
- Apply the basic concepts of physics, including mechanics, energy, simple oscillatory systems, gas laws and fluid dynamics.
- Apply the concept of conservation laws in problem solving.
- Apply basic algebraic and graphical analysis techniques to physics problems.
- Compare and contrast macroscopic and microscopic systems in physics.
- Define quantitatively and qualitatively the common terms used in physics.
- Assess the limitations of the scientific method and apply error analysis.
- Determine when to apply physics principles to everyday situations.

### PHYS 151L College Physics Laboratory I (1)

Experiments in statics, mechanics, energy, waves, and friction. (3 hours laboratory)

*Prerequisite:* Credit for or registration in PHYS 151.

DY

The student learning outcomes are:

- Apply the scientific method to physical science systems involving mechanics, energy, simple oscillatory systems, gas laws and fluid dynamics.
- Collect, report and analyze data obtained in a laboratory setting in a manner exhibiting organization, proper documentation and critical thinking.
- Manipulate data and apply quantitative techniques, such as graphing and statistical analysis.
- Demonstrate a basic understanding of the standard instruments used in physics.
- Identify environmental factors, which affect the outcome of an experiment or observation and apply basic error analyses techniques.

### PHYS 152 College Physics II (3)

A noncalculus, one-semester course for pre-professional or nonengineering majors. Study of the basic concepts of physics, including the fundamental principles and theories in electricity, magnetism, optics, and modern physics. (3 hours lecture)

*Prerequisite:* Credit for PHYS 151 or equivalent, or consent of instructor.

*Corequisite:* PHYS 152L.

DP

The student learning outcomes are:

- Demonstrate a general understanding of the underlying philosophy of the physics, including the scientific method.
- Apply the basic concepts of physics, including thermodynamics, static and dynamic laws of electricity and magnetism, circuit analysis, electromagnetic radiation, optical systems, and the fundamentals of atomic and nuclear physics.

## Course Descriptions

- Apply the concept of conservation laws in problem solving.
- Apply basic algebraic and graphical analysis techniques to physics problems.
- Compare and contrast macroscopic and microscopic systems in physics.
- Define quantitatively and qualitatively the common terms used in physics.
- Assess the limitations of the scientific method and apply error analysis.
- Recognize the physical science principles as applied to everyday situations.

### **PHYS 152L College Physics Laboratory II (1)**

Experiments in electricity, magnetism, optics, and modern physics. (3 hours laboratory)

*Prerequisite:* Credit for or registration in PHYS 152.

DY

The student learning outcomes are:

- Apply the scientific method to physical science systems involving thermodynamics, static and dynamic laws of electricity and magnetism, electrical and electronic circuit analysis, electromagnetic radiation, optical systems, and the fundamentals of atomic and nuclear physics.
- Collect, report and analyze data obtained in a laboratory setting in a manner exhibiting organization, proper documentation and critical thinking.
- Manipulate data and apply quantitative techniques, such as graphing and statistical analysis.
- Demonstrate a basic understanding of the standard instruments used in physics.
- Identify environmental factors, which affect the outcome of an experiment or observation and apply basic error analyses techniques.

### **PHYS 170 General Physics I (4)**

This is the first of a rigorous, calculus-based course in physics for the professional or engineering majors. The study of the concepts of physics including the fundamental principles and theories of mechanics, energy, waves and thermodynamics. (4 hours lecture)

*Prerequisite:* Credit for MATH 205 or higher or equivalent or consent of instructor.

*Corequisite:* PHYS 170L and credit for or registration in MATH 206 or equivalent, or consent of instructor.

DP

The student learning outcomes are:

- Demonstrate a solid conceptual understanding of kinematics, dynamics, wave phenomena, and thermodynamics.
- Solve applicable problems using differential calculus and vector analysis.
- Apply the laws of physics to computational problems in kinematics, dynamics, wave phenomena, and thermodynamics.

### **PHYS 170L General Physics I Laboratory (1)**

This laboratory course is a rigorous, calculus-based study for professional or engineering majors. Laboratory exercises are designed to reinforce the fundamental concepts of kinematics, mechanics, energy, waves and thermodynamics. (3 hours laboratory)

*Corequisite:* Credit for or registration in PHYS 170.

DY

The student learning outcomes are:

- Demonstrate an experimental understanding of some basic physical concepts and theories.
- Demonstrate familiarity with various instruments and their use in making reliable and precise measurements.
- Calculate a result with the appropriate number of significant figures.
- Analyze data using calculation and graphical methods.
- Organize an accurate and complete laboratory notebook.

### **PHYS 272 General Physics II (3)**

This is the second in a rigorous, calculus-based physics course for the professional or engineering major. The study of the concepts of physics including the fundamental principles and theories of electricity, magnetism, light, and optical theory. (3 hours lecture)

*Prerequisite:* Credit for MATH 206 or higher or equivalent and a grade of "C" or better in PHYS 170 or consent of instructor.

*Corequisite:* PHYS 272L.

DP

The student learning outcomes are:

- Demonstrate a solid conceptual understanding of electricity, magnetism, light, and optical theory.
- Solve applicable problems using calculus and vector analysis.
- Apply the laws of physics to computational problems in electricity, magnetism, and wave phenomena.

### **PHYS 272L General Physics II Laboratory (1)**

This laboratory course is a rigorous, calculus-based study for professional or engineering majors. Laboratory exercises are designed to reinforce the fundamental concepts of electricity, magnetism, light and optical theory. (3 hours laboratory)

*Prerequisite:* Credit for or registration in PHYS 272.

DY

The student learning outcomes are:

- Demonstrate experimental understanding of some basic physical concepts and theories.
- Demonstrate familiarity with various instruments and learn to make reliable measurements.
- Calculate a result with the appropriate number of significant figures.
- Analyze data using calculation and graphical methods.
- Organize an accurate and complete laboratory notebook.

### **PHYS 274 Introduction to Modern Physics (3)**

This course focuses on the study of physical optics, special relativity, quantum mechanics, solid state physics, atomic and nuclear physics, and elementary particle physics. (3 hours lecture)

*Prerequisite:* Credit for PHYS 272 and PHYS 272L, and credit for or registration in MATH 231, or consent of instructor.

DP

The student learning outcomes are:

- Describe the theory of special relativity and its effects: time dilation and space contraction.

- Describe the particle like properties of electromagnetic radiation as demonstrated in the photoelectric effect and Compton scattering.
- Analyze the wavelike properties of matter known as quantum theory.
- Identify and Describe knowledge of the different properties of solids such as crystal structure, thermal and magnetic properties, and superconductivity.
- Describe nuclear structure, radioactive decay, nuclear interactions, and their applications.
- Identify the different elementary particles and describe their role in the forces that hold matter together.

## Political Science

### **POLS 110 Introduction to Political Science (3)**

Introduction to politics as a human activity. Discusses theories, ideologies, systems, and processes of politics. (3 hours lecture)

DS

The student learning outcomes are:

- Identify and describe the structure of political issues and political relationships.
- Clearly explain and evaluate complex political thought and the positions of several thinkers in political theory.
- Examine and interpret contemporary political issues through the application of political theory.
- Relate media, technology, and language to the formation and maintenance of the political order.
- Carefully justify one's own political position.

### **POLS 120 Introduction to World Politics (3)**

Power economics and world politics from cross-national perspectives. Discussion of U.S. foreign policy since 1945. (3 hours lecture)

DS

The student learning outcomes are:

- Explain basic terms, concepts, and principles of international relations.
- Analyze political processes, institutions, and issues in the foreign policy environment.
- Apply basic terms, concepts, and principles to everyday life.
- Assess his or her personal effectiveness in the political process.

### **POLS 130 Introduction to American Government (3)**

Focus on American politics and government on the basis of tradition and continuity. Covers: overview of constitutional development, institutions, processes, and participants of the American political system and alternative interpretations. (3 hours lecture)

DS

The student learning outcomes are:

- Explain basic terms, concepts, and principles of politics.
- Analyze political processes, institutions, and issues.
- Apply basic terms, concepts, and principles to everyday life.
- Assess his or her personal effectiveness in the American political process.

### **POLS 180 Introduction to Hawaiian Politics (3)**

Introduction to the study of political institutions, processes, and issues in Hawai'i. (3 hours lecture)

DS

The student learning outcomes are:

- Explain basic terms, concepts, and principles of politics.
- Analyze political processes, institutions, and issues in Hawai'i.
- Apply basic terms, concepts, and principles to everyday life.
- Assess his or her personal effectiveness in the political process.

### **POLS 243 Introduction to Politics and Film (3)**

The course introduces students to the analysis of the relationship between politics and film. Topics covered in the course will include the impact of films and the film industry on politics, the impact of politics on film, and methods for understanding the representational practices of film. (3 hours lecture)

DS

The student learning outcomes are:

- Identify and describe the narrative and compositional structure of film.
- Clearly explain and evaluate the political thoughts, assumptions and implications of several key films.
- Examine and interpret contemporary political issues in film through the application of political thought.
- Relate media, technology, and language to the formation and maintenance of the political order.
- Carefully justify one's own political position.

## Psychology

### **PSY 100 Survey of Psychology (3)**

An introductory course with emphasis on principles of human behavior. Topics covered include motivation, learning, perception, emotion, development, personality, states of consciousness, group processes, problem solving and thinking, and methods of inquiry. (3 hours lecture)

DS

The student learning outcomes are:

- Recognize the study of psychology as a science.
- Discuss the biological and environmental basis of human behavior.
- Integrate the basic perspectives, concepts, principles, and general information comprising the field of psychology.

### **PSY 170 Psychology of Adjustment (3)**

Focus is on understanding, evaluating and improving adjustment. Includes study of theories, concepts and techniques concerning personal growth and behavior change. (3 hours lecture)

DS

The student learning outcomes are:

- Identify and evaluate important issues in her or his own past and present.
- Integrate the basic perspectives, concepts, principles, and general information comprising the field psychology.
- Utilize the various psychology adjustment models and concepts in understanding his or her life.

## Course Descriptions

### PSY 202 Psychology of Gender (3)

Survey of topics in psychology relevant to gender and its impact on the lives of women and men: socialization of gender, mental health, racial identity, majority-minority status, sexual orientation, life-span issues, and violence. (Cross-listed as WS 202) (3 hours lecture)

*Prerequisite:* A grade of "C" or better in WS 151 or PSY 100 or consent of instructor.

DS

The student learning outcomes are:

- Describe the central concepts, theoretical perspectives, and research methods used in the psychology of gender.
- Use theoretical perspectives to explain gender behavior.
- Describe the biological influences on sex.
- Describe the cultural influences on gender.

### PSY 224 Abnormal Psychology (3)

Concepts and principles used in clinical practice: dynamics, diagnosis, and treatment of abnormal behavior. Compares and contrasts the different patterns of abnormal behavior. Examines the differences in theoretical models for understanding maladaptive behavior. (3 hours lecture)

*Recommended Preparation:* PSY 100.

DS

The student learning outcomes are:

- Compare and contrast historical and current theories of abnormal behavior.
- Identify and describe different types of abnormal behavior and the "best practice" therapies associated with each type.
- Apply the principles of psychology to their own thoughts and feelings.
- Illustrate understanding of the role of culture, ethnicity, and socio-economic factors in defining abnormal behavior.

### PSY 240 Developmental Psychology (3)

This course examines the emotional, mental, physical, and social development of individuals from infancy to adulthood with special attention to interests abilities and critical issues at successive developmental stages. (3 hours lecture)

*Prerequisite:* Credit for PSY 100 or consent of instructor.

DS

The student learning outcomes are:

- Recognize the study of psychology as a science.
- Discuss the biological and environmental basis of human behavior.
- Integrate the basic perspectives, concepts, principles, and general information comprising the field of developmental psychology.
- Utilize the various developmental psychology models and concepts in explaining human behaviors.

### PSY 250 Social Psychology (3)

This course will provide students with an understanding of the relationship of social roles on human behaviors and how interpersonal relationships, attribution theories, attitudes, group behaviors, and stereotypes affect human behaviors. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in PSY 100.

DS

The student learning outcomes are:

- Recognize the study of social psychology as a science.
- Integrate the basic perspectives, concepts, principles, and general information comprising the field of social psychology.
- Utilize the various social psychology models and concepts in explaining human behaviors.

### PSY 251 Human Sexuality (3)

Examines topic areas in the field of human sexuality including anatomy/physiology, sexual response, and sexual themes in society. Emphasizes understanding of one's sexuality through decision-making and communication skills. (3 hours lecture)

*Prerequisite:* Credit for PSY 100 or consent of instructor.

DS

The student learning outcomes are:

- Recognize the study of human sexuality as a science.
- Describe the role of biology, culture, and socio-economic factors in the understanding and expression of human sexuality.
- Discuss the basic perspectives, concepts, principles, and general information comprising the field of human sexuality.

### PSY 260 Psychology of Personality (3)

An introduction to the basic theoretical approaches to personality, how they are developed, changed and analyzed. (3 hours lecture)

*Prerequisite:* Credit for PSY 100.

DS

The student learning outcomes are:

- Recognize the study of personality psychology as a science.
- Discuss the basic perspectives, concepts, principles, and general information comprising the field of personality psychology.
- Utilize the various personality psychology models and concepts in explaining human behaviors.

### PSY 270 Introduction to Clinical Psychology (3)

This course will provide students with an understanding of the history, theories and current developments in clinical psychology and different methods of assessment, forms of intervention and types of psychological problems. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in PSY 100.

DS

The student learning outcomes are:

- Critique the foundation of knowledge, skills, professional attitudes and values associated with clinical psychology.
- Integrate the basic perspectives, concepts, principles, practices and general information comprising the field of clinical psychology.
- Utilize the various clinical psychology models and concepts in explaining human behaviors.

## Religion

### REL 150 Introduction to World's Major Religions (3)

Introduction to the world's major religions: Primitive, Hinduism, Buddhism, Shinto, Confucianism, Taoism, Judaism, Christianity, and Islam. Field trips may be required outside class time. (3 hours lecture)



## Course Descriptions

FGC

The student learning outcomes are:

- Identify the following elements or dimensions: origin, doctrines, ethics, sacred literature, important figures/founders, rituals, worship, and institutions for each of the world's major religious traditions.
- Identify the similarities and differences between two or more religions on the basis of the aforementioned dimensions.
- Examine the relationship between religion and culture/society.
- Question and think critically.

### **REL 151 Religion and the Meaning of Existence (3)**

Introduction to basic issues of the question of the meaning of human existence. Emphasis is placed upon the student analyzing his/her own beliefs and exploring alternative answers. (3 hours lecture)

DH

The student learning outcomes are:

- Identify the various understandings of experience, existence, and/or the Ultimate/Absolute Reality in the world's religious traditions.
- Compare and contrast the similarities and differences between these meanings of existence in two or more religions.
- Identify the rituals, myths, and symbols/art that shape these worldviews.
- Analyze their belief systems.

### **REL 201 Understanding the New Testament (3)**

Analysis of the origin and development of the early Christian message as set forth in the New Testament. Special attention will be given to the message of Jesus and Paul and its relevance to the modern world. (3 hours lecture)

DH

The student learning outcomes are:

- Demonstrate awareness of the historical and literary context of the New Testament.
- Show knowledge of modern Biblical interpretation and criticism.
- Show an understanding of the major parts and types of literature contained in the New Testament.
- Demonstrate recognition of how New Testament teachings have shaped modern society and human understanding of self.

### **REL 202 Understanding Indian Religions (3)**

Historical survey of the teachings and practices of the major religious traditions of India. (3 hours lecture)

*Prerequisite: Placement in ENG 100, or consent of instructor.*

*Recommended Preparation: REL 150 or 151.*

DH

The student learning outcomes are:

- Identify the myths, histories, doctrines, and practices of Hinduism, Jainism, Buddhism, and Sikhism.
- Identify each religion's understanding of the human condition, ethics, knowledge, death, the afterlife, and conceptions of the divine.
- Identify common themes within the religions studied.
- Interpret primary sources (such as epics, devotional poetry,

mystical instruction, myths, and hymns).

- Examine the relationship between religion and culture/society.
- Question and think critically.

### **REL 205 Understanding Hawaiian Religion (3)**

Major Hawaiian religious teachings and practices from ancient times to the present. Investigation of cultural influence of Hawaiian religious beliefs; analysis of religious texts and relation to other traditions. This course may be applied to the BA language/culture core requirements at UH Mānoa. (3 hours lecture)

DH

The student learning outcomes are:

- Identify and access major sources on Hawaiian religion.
- Express thoughts on Hawaiian religion in oral and written form.
- Compare and contrast elements of the Hawaiian religious experience with others or with their own.
- Identify ways in which Hawaiian religious thought and practice continues in the present.
- Interpret some symbolism of Hawaiian religious ritual and poetry.

### **REL 206 Understanding Confucianism (3)**

Exploration of Confucianism in its philosophical, cultural, and historical context in China. (3 hours lecture)

*Recommended Preparation: Credit for REL 150 Introduction to Major World Religions.*

DH

The student learning outcomes are:

- Analyze the primary and secondary texts.
- Explore the relevance of these texts to contemporary issues today, both in China and elsewhere.
- Describe the origins and major historical periods in Confucian belief and practice.
- Examine the relationship between religion and culture/society.

### **REL 207 Understanding Buddhism (3)**

Survey of major forms and practices of Buddhism. (3 hours lecture)

*Recommended Preparation: ENG 100 and either REL 150 or REL 151.*

DH

The student learning outcomes are:

- Identify the myths, histories, doctrines, and practices of the major schools of Buddhism.
- Identify each school's understanding of the human condition, ethics, knowledge, death, the afterlife, and conceptions of the divine.
- Interpret primary sources.
- Examine the relationship between religion and culture/society.
- Question and think critically.

### **REL 296 Special Topics in Religion (3)**

Students will investigate important topics in the study of religion such as Sacred Places, Religion and the Media, or Religion and Politics. A specific course description will be printed in the schedule of classes. (3 hours lecture)

*Recommended Preparation: REL 150 or REL 151 The student learning outcomes are:*

## Course Descriptions

- Identify the important concepts and facts associated with the topic under examination.
- Explain cause and effect relationships in connection to the topic discussed.
- Compare and contrast various religions' ideas of the topic.
- Relate the topic to contemporary events.

## Science

### SCI 160A Polynesian Voyaging and Seamanship (3)

This course focuses on the fundamentals of voyaging and seamanship by blending the traditions of Polynesian culture, history and skills with modern science and technology. An interdisciplinary approach is used in treating topics in Hawaiian studies, astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology of Polynesia and Hawai'i. (3 hours lecture)

DP

The student learning outcomes are:

- Describe the basic geography of Polynesia.
- Apply the fundamental concepts in positional astronomy (including the seasons) and identify two of the four recognized star lines used for navigation.
- Explain the basic principals in wayfinding (non-instrument navigation).

### SCI 160B Polynesian Voyaging and Seamanship (3)

This course focuses on the fundamentals of voyaging and seamanship by blending the traditions of Polynesian culture, history and skills with modern science and technology. An interdisciplinary approach is used in treating topics in Hawaiian studies, astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology of Polynesia and Hawai'i. (3 hours lecture)

*Corequisite: SCI 160L*

DP

The student learning outcomes are:

- Describe the basic geography of Polynesia.
- Apply the fundamental concepts in positional astronomy (including the seasons) and identify two of the four recognized star lines used for navigation.
- Explain the basic principals in wayfinding (non-instrument navigation).
- Discuss Polynesian migration as gleaned from archaeological findings.
- Discuss Polynesian mythology and cosmology, especially as related to voyaging.
- Apply the basic concepts in geology, especially of the Pacific area.
- Discuss fundamentals of weather forecasting as related to the Pacific Ocean.
- Identify native and Hawaiian plants, especially those used in voyaging.

### SCI 160L Polynesian Voyaging and Seamanship Lab (1)

Laboratory/field trip course designed to acquire seamanship skills and apply knowledge of astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology through sailing and environmental exploring activities. Optional

coastal and/or inter-island voyaging field trips may be offered. (Students will be responsible for fees for each activity.) (3 hours laboratory)

*Prerequisite: 1. Minimum water skills and survival requirements: Pass the following water survival tests, which will be administered by the second lab: ability to swim a minimum of 500 yards in the open ocean using any strokes; ability to tread water for 30 minutes in the open ocean. 2. Health clearance: A written statement must be signed by a medical physician certifying that the student is physically capable of participating in the sailing activities scheduled for the lab. Health clearance must be submitted by the date of the first sailing lab.*

*Corequisite: SCI 160B*

The student learning outcomes are:

- Apply both traditional Polynesian skills and modern scientific methods when engaged in sailing and environmental exploring activities.
- Apply basic sailing and navigational skills to prepare and carry out a sailing plan.
- Apply water safety skills.
- Conduct basic canoe operations, including rigging, sailing and maintenance.
- Identify Polynesian-introduced plants and native plants that are valuable for voyaging and discuss their value as food source, medicine, building material, and cordage.

### SCI 260A Polynesian Voyaging and Stewardship (3)

This course focuses on the fundamentals of voyaging and the impact of human activity on the environment of Hawai'i, with emphasis on Kāne'ohe Bay and the Windward coast. An interdisciplinary approach is used in blending the traditions of Polynesian culture, history and skills with modern science and technology. Topics covered include Hawaiian studies, astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology of Polynesia and Hawai'i.

*Prerequisite: Credit for SCI 160A or SCI 160B or consent of instructor.*

DP

The student learning outcomes are:

- Identify the remaining two of the four recognized star lines used for navigation.
- Contrast and compare wayfinding, celestial navigation and GPS.
- Discuss and explain the lunar phases and the causes and effects of tides.
- Explain and apply the physics of sailing, as related to Bernoulli's principle and Newtonian physics.
- Discuss the settlement of Hawai'i with emphasis on the Kāne'ohe Bay area, including place names and voyaging chiefs.
- Apply the basic concepts in oceanography and meteorology, especially of the Pacific area.
- Apply basic sailing and navigational skills to prepare and carry out a sail plan.

### SCI 260B Polynesian Voyaging and Stewardship (3)

This course focuses on the fundamentals of voyaging and the impact of human activity on the environment of Hawai'i, with emphasis on Kāne'ohe Bay and the Windward coast. An interdisciplinary approach is used in blending the traditions of Polynesian culture, history and skills with modern science and technology. Topics covered

## Course Descriptions

include Hawaiian studies, astronomy, geology, oceanography, meteorology, marine biology, ethnobotany and archaeology of Polynesia and Hawai'i.

*Prerequisite:* Credit for SCI 160A or SCI 160B or consent of instructor

*Corequisite:* SCI 260L

DP

The student learning outcomes are:

- Identify the remaining two of the four recognized star lines used for navigation.
- Contrast and compare wayfinding, celestial navigation and GPS.
- Discuss and explain the lunar phases and the causes and effects of tides.
- Explain and apply the physics of sailing, as related to Bernoulli's principle and Newtonian physics.
- Discuss the settlement of Hawai'i with emphasis on the Kāne'ohe Bay area, including place names and voyaging chiefs.
- Apply the basic concepts in oceanography and meteorology, especially of the Pacific area.
- Apply basic sailing and navigational skills to prepare and carry out a sail plan.

### **SCI 260L Polynesian Voyaging and Stewardship Lab (1)**

Laboratory/field trip course designed to apply knowledge of Polynesian skills and modern science to the impact on the environment due to human settlement, especially in Hawai'i. Laboratory activities will further develop student skills in sailing, sail planning and navigation. Students are expected to undertake mentorship roles in disseminating their newly acquired knowledge and skills to the community. Optional coastal and/or inter-island voyaging field trips may be offered. (Students will be responsible for fees for each activity.) (3 hours laboratory)

*Prerequisite:* 1. Credit for SCI 160L or consent of instructor. 2. Minimum water skills and survival requirements: Students must demonstrate an ability to swim a minimum of 500 yards in the open ocean using any strokes, except back stroke; ability to tread water for 30 minutes in the open ocean. (Note. Accredited water skill and survival tests passed within the past year are acceptable upon instructor approval. The "swim test" must be completed by the date of the first sailing lab.) 3. Health clearance: from a licensed physician must be provided. (Note. Health clearance submitted within the past year is acceptable upon instructor approval. Health clearance must be submitted by the date of the first sailing lab.)

*Corequisite:* SCI 260B.

DY

The student learning outcomes are:

- Respond to navigational and environmental problems using knowledge of constellations, wayfinding geology, oceanography, weather forecasting, and ecology.
- Apply basic sailing and navigational skills to prepare and carry out a sailing plan.
- Plan and prepare a balanced diet for voyaging.
- Strengthen swimming skills and water safety skills.
- Mentor others in the basics of Polynesian sailing and environmental stewardship.

### **SCI 295V Introduction to STEM Research (1-3)**

SCI 295V offers a research experience in science, technology,

engineering, and/or mathematics, emphasizing the application of the scientific method to a specific project. Repeatable for up to 6 credits. (3 hours cooperative education/work experience per week per credit)

*Prerequisite:* Instructor consent.

*Recommended Preparation:* Completion of a lab science course as stipulated by the instructor.

The student learning outcomes are:

- Use research and technology skills to access information from multiple sources.
- Design and implement a plan to solve a specific STEM-based research project.
- Collect, analyze and interpret data generated by the selected research project.
- Communicate conclusions in written and/or oral form.

## Social Sciences

### **SSCI 193 Cooperative Arts and Science Education (CASE) (1-4)**

A work-study course providing opportunities to reinforce skills learned in the Social Science areas and to apply those skills in actual job situations. May be repeated up to 6 credits.

*Prerequisite:* Minimum of 12 credit hours of general curricula.

The student learning outcomes are:

- Integrate the foundations of knowledge, skills, professional attitudes and values associated with a career field in the helping and human resource professions.
- Discuss the dynamics and multiple causes of interpersonal, family, and organizational dysfunction.
- Utilize a range of helping strategies and skills appropriate for prevention and early intervention work in a variety of settings.
- Apply the basic knowledge and practice of counseling and problem solving skills.

### **SOCS 225 Statistical Analysis for Social Sciences (3)**

This course covers statistical methods related to behavioral sciences including frequency distributions, graphic methods, central tendency, variability, correlation, reliability, and tests of significance. (3 hours lecture)

DS

*Prerequisite:* Credit in a 100-level (or above) Social Science course, placement into English 100, and placement into Math 103 or higher; or consent of instructor.

The student learning outcomes are:

- Use descriptive and inferential statistics to summarize and analyze raw data.
- Present statistical data in graphs and tables.
- Use statistical formulas to investigate the relationships among variables, including central tendency, correlations, and percentages.
- Use t-test, f-test, and z-test to test hypotheses and statistical significance.

### **SSCI 293 Cooperative Arts and Science Education (1-4)**

A work-study course providing opportunities to upgrade and diversify knowledge and skills learned in the behavioral and social

## Course Descriptions

sciences, and to apply these in job situations. (Practicum)

*Prerequisite: SSCI 193V.*

The student learning outcomes are:

- Integrate the foundations of knowledge, skills, professional attitudes and values associated with a career field in the helping and human resource professions.
- Discuss the dynamics and multiple causes of interpersonal, family, and organizational dysfunction.
- Utilize a range of helping strategies and skills appropriate for prevention and early intervention work in a variety of settings.
- Apply the basic knowledge and practice of counseling and problem solving skills.

## Social Work

### **SW 200 The Field of Social Work (3)**

Orientation to the profession of social work; the nature and scope of social work, historical development, values and philosophy, methods of practice, scope, and aims. (3 hours lecture)

*Prerequisite: Credit for ENG 22 or ENG 23 or placement in ENG 100.*

The student learning outcomes are:

- Describe the historical development and identify professional characteristics of social work as a profession.
- Explain social work values and their applications in the field.
- Analyze social problems affecting individuals, families, groups, and communities.
- Explain the theories and skills of social problems and their applications.
- Identify personal characteristics and analyze their implications in the practice of social work.

## Sociology

### **SOC 100 Survey of General Sociology (3)**

This course is an introduction to the scientific discipline of sociology. It will focus on key concepts, main theoretical perspectives, and research findings used by sociologists to explain the social world and social interaction. The course examines the fundamental components and institutions that makeup the structure of human societies as well as the basic processes and direction of social change. (3 hours lecture)

DS

The student learning outcomes are:

- Summarize and distinguish the three main theoretical perspectives in sociology.
- Analyze and apply specific sociological theories and perspectives to human behavior and social issues.
- Explain and evaluate how society and culture affect our beliefs, values, behavior, and thinking patterns.
- Express and communicate ideas and opinions clearly in writing.

### **SOC 218 Introduction to Social Problems (3)**

This course is a theoretical and substantive survey of the nature and causes of social problems; selected topics may vary from semester to semester. (3 hours lecture)

DS

The student learning outcomes are:

- Identify and utilize sociological perspectives to analyze social problems in society.
- Use critical thinking skills to evaluate the causes of social problems.
- Evaluate proposed solutions to social problems.

### **SOC 231 Introduction to Juvenile Delinquency (3)**

This course focuses on juvenile delinquency in the U.S. and examines the nature of and trends in juvenile delinquency, explanations for and theories of juvenile delinquency, and institutional responses to and treatment of juvenile delinquency in the U.S. juvenile justice system. (3 hours lecture)

DS

The student learning outcomes are:

- Apply sociological theories of juvenile delinquency to contemporary cases.
- Explain the multiple causes of juvenile delinquency.
- Describe the differences in male and female offenders.
- Describe how social institutions prevent and/or contribute to juvenile delinquency.

### **SOC 251 Introduction to Sociology of the Family (3)**

SOC 251 is the study of human relationships within courtship, marriage, and the family as influenced by culture and society. It is designed to challenge students to re-examine assumptions regarding behavior, decisions, choices, and motivations in interpersonal relationships. The course places particular emphasis on diverse family forms, and the changing nature of how we define family. (3 hours lecture)

DS

The student learning outcomes are:

- Identify, describe, and analyze major trends in the family from a sociological perspective.
- Describe and analyze the connections between individual family experiences and larger social institutions.
- Analyze contemporary social and political issues and describe how those issues affect the family.

## Spanish Language

### **SPAN 101 Beginning Spanish I (4)**

Introduction to basic structures of the Spanish language emphasizing speaking, writing, listening and reading. Oral communication emphasized to provide students with the right pronunciation vocabulary and the control of basic grammar. Introduction to Hispanic culture. (4 hours lecture)

The student learning outcomes are:

- Use appropriate pronunciation, structure and vocabulary to communicate orally with speakers of Spanish, answering questions or making simple descriptions.
- Read and understand authentic documents in Spanish for cultural information.
- Write simple texts (shopping lists, descriptions, postcards, forms) using knowledge of vocabulary, culture and basic grammatical structures.
- Analyze oral, written and visual sources (phone messages,



menus, advertisements, cartoons) of information about Hispanic culture and compare and contrast with what the students know of their own culture.

### **SPAN 102 Beginning Spanish II (4)**

Continues SPAN 101 through reading, speaking, writing and listening. Oral communication emphasized. Utilizes videos, stories and songs. Deals with Hispanic culture and the basic knowledge of the history, geography, and the traditions of Spanish speaking countries. (4 hours lecture)

*Prerequisite: Credit for SPAN 101 or consent of instructor.*

The student learning outcomes are:

- Use appropriate pronunciation, structure and vocabulary to communicate orally with speakers of Spanish with greater proficiency, using role playing to create dialogues based on real-life situations.
- Read and understand authentic documents in Spanish (simple articles, poems, newspaper articles) for cultural information with greater proficiency.
- Write simple texts (letters, diaries, simple essays) using knowledge of vocabulary, culture and basic grammatical structures with greater proficiency.
- Analyze oral, written and visual sources (dialogues, articles, film clips, Internet sites) of information about Hispanic culture and compare and contrast with what the students know of their own culture.

### **SPAN 201 Intermediate Spanish I (3)**

Continuation of SPAN 102. Further refinement of basic language skills. Increased control over structures and idioms in written and oral expression. Reading about Hispanic culture, society, history and literature. (3 hours lecture)

*Prerequisite: Credit for SPAN 102 or consent of instructor.*

The student learning outcomes are:

- Use appropriate pronunciation, structure and vocabulary to communicate orally with speakers of Spanish.
- Read and understand authentic documents (menus, recipes, itineraries, articles) in Spanish for cultural information.
- Compose dialogues and do research on some aspect of Hispanic culture or history and present it orally.
- Analyze oral, written and visual sources of information about Hispanic culture and compare and contrast with what the students know of their own culture.
- Write descriptions, letters, diaries, showing knowledge of vocabulary, appropriate structures and knowledge of Hispanic culture.
- Use Spanish to communicate personal information and experience and narrate past events and future aspirations.

### **SPAN 202 Intermediate Spanish II (3)**

Continuation of SPAN 201. Further refinement of basic language skills including vocabulary development beyond the 201 level. Increased control over structures and idioms. Includes reading about literature, culture and society. (3 hours lecture)

*Prerequisite: Credit for SPAN 201 or consent of instructor.*

The student learning outcomes are:

- Use accurate pronunciation, structure and vocabulary to

communicate orally with speakers of Spanish, creating dialogs based on real-life situations.

- Read and understand authentic documents in Spanish (articles, poems, short stories, film scripts, plays) for cultural information and critical thinking.
- Write texts (poems, essays, diaries, reports) using knowledge of vocabulary, culture and increasingly sophisticated syntax and grammatical structure, with increasing fluency and proficiency.
- Analyze oral, written and visual sources (dialogs, articles, film clips, feature length films, Internet sites) of information about Hispanic culture and compare and contrast with what the students know of their own culture.
- Create short film clips in the u-tube genre, containing both visual and verbal information about Hispanic culture.

## Speech

### **SP 151 Personal and Public Speech (3)**

This course introduces students to the basic principles of human communication. Students will receive practice in improving their competency in the areas of public speaking, specifically in informative and persuasive speaking. (3 hours lecture)

*Prerequisite: Placement in ENG 21 or ENG 23 or higher.*

DA OC

The student learning outcomes are:

- Describe the principles and processes of human communication.
- Compare and contrast differences between interpersonal, intrapersonal, and public speaking.
- Demonstrate and evaluate effective verbal and nonverbal communication.
- Appropriately adapt communicative messages to the self and to others.
- Demonstrate effective listening skills.

### **SP 181 Introduction to Interpersonal Communication (3)**

Introduction to basic principles of interaction between two people. Emphasis is on enhancement of skills in a variety of interpersonal contexts. (3 hours lecture)

*Prerequisite: Placement in ENG 21 or ENG 23 or higher.*

OC

The student learning outcomes are:

- Analyze situations in terms of communication models, identifying perspective and perception.
- Demonstrate improvement in listening skills through tests and critical analysis of other students by avoiding listening problems and practicing guidelines for listener feedback.
- Determine the source of individual values and development in understanding and analyzing self-image as the communicator.
- Recognize nonverbal communication identifying body language, gesture, facial expression, and posture.
- Apply effectively specific skills to improve assertiveness.
- Define conflict/stress and identify steps in reaching a mutually acceptable decision.
- Trace the development of relationships, identifying major steps of each level, and analyzing the progression of these levels.

## Course Descriptions

### SP 231 Performance of Literature (3)

Introduction to the study of literature through performance. Practice in rhetorical and literary analysis culminating in and performance of literary selections for an audience. The nature of performance criticism. (3 hours lecture)

*Prerequisite:* Credit for ENG 100 or SP 151.

DA OC

The student learning outcomes are:

- Use an in-depth process of written literary analysis to understand and appreciate various selections from prose, poetry and dramatic literature.
- Utilize voice, speech and body to interpret and communicate effectively to an audience selections from prose, poetry and dramatic literature.
- Use emotion and imagination through recall and transference to bring the literary happenings alive in a creative experience.
- Listen critically and appreciatively to the oral presentation of various selections from prose, poetry and dramatic literature and give evaluation feedback to peers as well as analyze in writing one's own performances.

### SP 251 Principles of Effective Public Speaking (3)

This course provides students with the opportunity to build on their public speaking skills through extensive practice in speech preparation and delivery techniques. This course will focus on how to organize a presentation, develop rhetorical skills, and use analytical skills. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in ENG 100 or credit for SP 151.

DA OC

The student learning outcomes are:

- Demonstrate correct usage of relevant concepts, theories, and principles of effective public communication.
- Analyze the ethical implications of speaking and being an attentive audience member.
- Select appropriate and effective speech topics.
- Conduct quality research and gather supporting material for various types of public speeches.
- Critique and provide constructive feedback to public speakers.

### SP 253 Argumentation and Debate (3)

SP 253 develops writing, reading, critical thinking, and communication skills. Students will learn to develop techniques to researching and presenting arguments in an effective and articulate manner. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in ENG 100 or credit for SP 151.

*Recommended Preparation:* Recommended course SP 151

DA OC

The student learning outcomes are:

- Use different speech components to form a cohesive argument
- Identify support for claims and be able to refute and explain logical fallacies
- Recognize ethical and unethical arguments through the use of rhetoric
- Differentiate between propositions of fact, value, and policy
- Demonstrate an increased self-awareness of critical thinking and reasoning including identifying self-biases and inferences

### SP 260 Organizational Communication (3)

SP 260 introduces theories and strategies for managing communication in organizations. Students will gain an understanding of how communication functions by addressing the self, maintaining interpersonal relationships, problem solving and decision-making, and the use of technology in the workplace. (3 hours lecture)

*Prerequisite:* Grade of "C" or better in ENG 100 or credit for SP 151.

DS

The student learning outcomes are:

- Discuss the characteristics of groups and teams in organizations
- Analyze communication problems in the workplace
- Evaluate the role of interpersonal relationships in organizations
- Apply communication theories to everyday situations using multiple perspectives

## Theatre

### THEA 101 Introduction to Drama and Theatre (3)

An introduction to the art of drama and theatre. Students study selected plays that are representative of important playwrights and historical periods. These plays are studied in their historical context and provide a basis for understanding elements and styles of drama. Theatre production will also be explored by considering the functions of actors, audiences, designers, playwrights and technicians. (3 hours lecture)

DA

The student learning outcomes are:

- Discuss the origin and development of the theatre from its beginnings to the present.
- Discuss the theatre's influence and importance in human culture.
- Compare and contrast plays and theatre practices from different time periods and cultures.
- Analyze the artistic choices and techniques used to transform a written dramatic script into a performed work presented to an audience.

### THEA 131 Beginning Unarmed Stage Combat (3)

Introduction to theatrical unarmed stage combat. May be repeated up to 9 credits. (3 hours lecture.)

DA

The student learning outcomes are:

- Correctly define stage combat specialized terminology and concepts.
- Execute theatrical fight techniques
- Choreograph and perform staged fights

### THEA 132 Beginning Sword Stage Combat (3)

Introduction to sword-fighting for the stage. May be repeated up to 9 credits. (3 hours lecture.)

*Prerequisite:* Grade of "C" or better in THEA 131 or instructor consent.

DA

The student learning outcomes are:

- Demonstrate correct usage of sword stage combat terminology and core concepts

## Course Descriptions

- Execute sword techniques for the stage
- Perform choreographed theatrical sword fights

### **THEA 211 Mask Making and Performance (3)**

A hands-on course exploring several mask-making techniques, and the fundamentals of bringing a mask to life. The history and cultural significance of the mask will be surveyed. Students will make several masks and will perform for each other. (3 hours lecture)

DA

The student learning outcomes are:

- Discuss the importance of the mask in human culture.
- Demonstrate two or more mask-making techniques.
- Apply the basic process of bringing a mask to life to improvisations or rehearsed performances.
- Identify, analyze, and critically evaluate the technique in mask-making and mask performances.

### **THEA 220 Beginning Voice and Movement (3)**

Introduction to vocal and movement techniques to increase self-awareness and potential for self-expression. May be repeated up to 6 credits. (3 hours lecture)

DA

The student learning outcomes are:

- Demonstrate awareness of personal habits, tensions and methods for releasing them, and physical and vocal preferences.
- Execute a wide variety of warmup and performance tools
- Perform pieces with self-expression through vocal and physical choices.

### **THEA 221 Acting I (3)**

Performance course concentrating on voice, relaxation, body awareness, and freedom from self-consciousness through theatre games, improvisation, and exercises. Emphasis on ensemble work. Students must see two plays and write about them or use the Service-Learning option. May be repeated up to 9 credits. (3 hours lecture)

DA

The student learning outcomes are:

- Articulate and project the voice well.
- Devise and execute pantomimes and improvisations.
- Explore dramatic one- and two-person scenes.
- Identify, analyze and critically evaluate the technique and believability of dramatic performances.

### **THEA 222 Acting II (3)**

Performance course concentrating on exploration of character creation; continued work on voice, relaxation, and self-realization. Students must see two plays and write about them or use the Service-Learning option. May be repeated up to 9 credits. (3 hours lecture)

*Prerequisite: Grade of "C" or better in THEA 221.*

DA OC

The student learning outcomes are:

- Articulate and project the voice well.
- Devise and execute pantomimes and improvisations.
- Perform dramatic one- and two-person scenes.
- Identify, analyze and critically evaluate the technique and believability of dramatic performances.

### **THEA 240 Introduction to Stagecraft (3)**

Introduction to the technical process of theatre including scenery, lighting, sound and stage management. Students will focus on the range of skills needed to work in theatrical space. May be repeated up to 6 credits. (3 hours lecture)

DA

The student learning outcomes are:

- Demonstrate competence with the use of theatrical equipment.
- Identify key theatrical terms and concepts.
- Critically evaluate a theatrical event.
- Work effectively in a theatrical environment.

### **THEA 241 Advanced Stagecraft (3)**

Advanced techniques of the technical process of theatre including lighting, sound, and rigging. Students will focus on the range of skills needed to work in convention, theatrical, concert, and dance applications. May be repeated up to 6 credits. (3 hours lecture)

*Prerequisite: Credit for THEA 240 or consent of instructor.*

DA

The student learning outcomes are:

- Demonstrate competence with the use of theatrical equipment to the instructor.
- Identify key theatrical terms and concepts.
- Critically evaluate a theatrical event.
- Work effectively in a theatrical environment.
- Demonstrate knowledge of one particular area of stagecraft through a presentation to the class and/or the instructor.

### **THEA 260 Dramatic Production (3)**

Introduction to the process of converting a play into a performance. Students are required to participate in at least two aspects of an actual production. May be repeated up to 9 credits. (3 hours lecture)

DA

The student learning outcomes are:

- Identify key theatrical terms and concepts.
- Critically evaluate a theatrical event.
- Demonstrate professionalism in one particular area of theatrical production.

### **THEA 280 Beginning Playwriting (3)**

The course introduces structure, guidelines, and format of the monologue and short play; beginning with the conception of an idea, followed by effective outlining and research techniques, subsequent drafts, and the final product in a polished monologue and short play. (3 hours lecture)

*Prerequisite: Credit for ENG 100.*

DA

The student learning outcomes are:

- Analyze the theme, plot-structure, historical context, political and/or cultural commentary and influence on later works of three to five plays.
- Write monologues and scenes.
- Write a complete short play (one or two acts).

## Course Descriptions

### THEA 296 Special Topics in Theatre (3)

Students will investigate important topics in Theatre Studies such as specific artists/practitioners, genres, or methods of training. May be repeated up to 6 credits with different topics. (3 hours lecture)

*Prerequisite:* "C" or better in THEA 101 or "C" or better in THEA 221.

The student learning outcomes are:

- Identify the important concepts and facts associated with the topic under examination.
- Explain cause and effect relationships in connection to the topic discussed.
- Compare and contrast various interpretations of the topic.
- Relate the topic to contemporary events.

## Women's Studies

### WS 151 Introduction to Gender and Women's Studies (3)

This course is an introduction to feminist interdisciplinary analysis from global and critical perspectives. It explores relationships between women and men from various cultures, with a focus on gender, race, class, and sexual dynamics. The course also explores women's negotiations with institutional dynamics. (3 hours lecture)

DS

The student learning outcomes are:

- Explain the difference between sex as a biological category and gender as a social category.
- Describe the various ways that gender categories are socially constructed.
- Describe the historical changes in both gender roles and the status of women in the United States.
- Explain the similarities and differences of women's roles across cultural, racial, social, and economic lines.

### WS 200 Culture, Gender, and Appearance (3)

This course explores the social construction of gender within culture and its visual expression through appearance. An analysis of role, identity, conformity, and deviance in human appearance is emphasized. (3 hours lecture)

DS

The student learning outcomes are:

- Use concepts and apply theories to describe the role of individual choice in appearance.
- Describe the links between clothing and culture.
- Describe the role appearance plays in gender development.
- Explain the communicative nature of appearance and expressions of identity.

### WS 202 Psychology of Gender (3)

Survey of topics in psychology relevant to gender and its impact on the lives of women and men: socialization of gender, mental health, racial identity, majority-minority status, sexual orientation, life-span issues, and violence. (Cross-listed as PSY 202) (3 hours lecture)

*Prerequisite:* A grade of "C" or better in WS 151 or PSY 100, or consent of instructor.

DS

The student learning outcomes are:

- Describe the central concepts, theoretical perspectives, and research methods used in the psychology of gender.
- Use theoretical perspectives to explain gender behavior.
- Describe the biological influences on sex.
- Describe the cultural influences on gender.

## Zoology

### ZOOL 105 Hawaiian Use of Fish and Aquatic Invertebrates (3)

A study of fish and aquatic invertebrates used traditionally by Native Hawaiians. This class will examine the role of fish and aquatic invertebrates in Hawaiian culture and resource utilization and management. (3 hours lecture)

*Recommended Preparation:* High school biology.

The student learning outcomes are:

- describe the origin of Hawaiian aquatic fauna in relationship to the geologic history of the Islands, human introductions and the environments in which they occur.
- identify (common names, scientific names, and Hawaiian names) the fish and aquatic invertebrates used in old Hawai'i and recent times and the roles these species played in Hawaiian culture and resource utilization.
- describe the various methods whereby aquatic animals were acquired, cultured, and managed.

### ZOOL 141 Human Anatomy and Physiology I (3)

The first semester of a two-semester course in human anatomy and physiology which includes a study of human embryology, gross anatomy, microanatomy, physiology, pathology, and homeostatic relationships. This course is intended for students entering health care or medically related fields such as nursing, physical therapy and medical technology. (3 hours lecture)

*Prerequisite:* High school chemistry or equivalent preparation or consent of instructor.

*Recommended Preparation:* High school biology, BIOL 100, BIOL 101 or ZOOL 101; registration in ZOOL 141L.

DB

The student learning outcomes are:

- Discuss the major chemical elements found in the human body and describe the different ways in which these elements combine to form molecules and compounds.
- Understand the functions of cellular organelles, and be able to trace the path of protein manufacture in the cell.
- Compare and contrast the physical, chemical, and biological factors governing the transport of materials across the cell membrane.
- Discuss the link between cells and tissues and describe how tissue structure determines its suitability for secretion, absorption, support, or protection.
- Use standard medical terminology to describe body positions and the orientations.
- Describe the anatomy and function of the integumentary, skeletal, muscular, and nervous systems, and discuss how these systems maintain homeostasis in the human body.
- Discuss how negative feedback maintains homeostasis in each



of the above body systems. Also, be able to explain how disease and disorders disrupt the homeostasis of each of the above body systems and discuss how common medical treatments and drugs are used to restore homeostasis.

- Write a research paper on a disease affecting one of the body systems using primary and secondary scientific literature.

### **ZOOL 141L Human Anatomy and Physiology Lab I (1)**

Laboratory to accompany ZOOL 141. Reinforces the facts and concepts of human anatomy and physiology discussed in ZOOL 141 through dissections, examination of models, laboratory activities, and other hands-on experiences. This course is intended for students entering health care or medically related fields such as nursing, physical therapy and medical technology. (3 hours laboratory)

*Prerequisite: Credit for or registration in ZOOL 141 or equivalent preparation or consent of instructor.*

DY

The student learning outcomes are:

- Use the scientific method to design and conduct a clinical research study.
- Describe the anatomy of the integumentary, skeletal, muscular, and nervous systems from prepared slides, skeleton models, and real and virtual animal dissections.
- Use basic laboratory equipment (microscopes, slides, and dissecting tools) to observe and characterize human tissues.
- Use critical thinking to analyze and interpret clinical data.
- Prepare an oral presentation and written summary of lab activities using the scientific method.

### **ZOOL 142 Human Anatomy and Physiology II (3)**

The second semester of a two-semester course in human anatomy and physiology which includes a study of human embryology, gross anatomy, microanatomy, physiology, pathology, and homeostatic relationships. This course is intended for students entering health care or medically related fields such as nursing, physical therapy and medical technology. (3 hours lecture)

*Prerequisite: Credit for ZOOL 141 or equivalent preparation or consent of instructor.*

*Recommended Preparation: Registration in ZOOL 142L.*

DB

The student learning outcomes are:

- Describe how lipids, carbohydrates, proteins and nucleic acids are digested, assimilated, and catabolized to obtain energy and raw materials.
- Describe the anatomy and function of the circulatory, lymphatic, endocrine, digestive, urinary, and reproductive systems and discuss how these systems maintain homeostasis in the human body.
- Describe the link between the anatomy of human tissues and organs and their functions within the human body.
- Discuss how negative feedback maintains homeostasis in the human body.
- Explain how disease and disorders disrupt the homeostasis of each of the above body systems and discuss how common medical treatments and drugs are used to restore homeostasis.
- Write a research paper on a disease affecting one of the body systems using primary and secondary scientific literature.

### **ZOOL 142L Human Anatomy and Physiology Lab II (1)**

Laboratory to accompany ZOOL 142. Reinforces the facts and concepts of human anatomy and physiology discussed in ZOOL 142 through dissections, examination of models, laboratory activities, and other hands-on experiences. This course is intended for students entering health care or medically related fields such as nursing, physical therapy and medical technology. (3 hours laboratory)

*Prerequisite: Credit for or registration in ZOOL 142 or equivalent preparation or consent of instructor.*

DY

The student learning outcomes are:

- Use the scientific method to design and conduct a clinical research study.
- Describe the anatomy of the endocrine, circulatory, lymphatic, respiratory, digestive, urinary, and reproductive systems from prepared slides, models, and real and virtual animal dissections.
- Use basic laboratory and medical equipment (microscopes, sphygmomanometers, stethoscopes, ECG apparatus, & respiratory spirometers) to evaluate functions of the above body systems.
- Use critical thinking to analyze and interpret clinical data.
- Prepare an oral presentation and written summary of lab activities using the scientific method.

### **ZOOL 154 Exercise for Wellness (3)**

The course will introduce students to the field of exercise, including a discussion of the underlying physiology, clinical responses, and the recommended medically related remediation. Exercise will be analyzed as an open energy system, supported by the major body systems, including cardiovascular, pulmonary, skeletal and neuromuscular systems. Important factors that will be considered include the frequency, intensity, type, and duration/time of exercise as well as the impact of gender, age, purpose, lifestyle and your body composition and metabolic status. (3 hours lecture)

*Recommended Preparation: BIOL 100 or ZOOL 101 or ZOOL 141 and ZOOL 142.*

DB

The student learning outcomes are:

- Define basic terms, concepts and principles of exercise, fitness, and wellness.
- Describe the fundamental classification of exercise biology and its underlying processes.
- Discuss the relationships between exercise and health.
- Explain the specificity of exercise and its multiple modes of application and related responses.
- Describe guidelines for assessing and planning a fitness-wellness program.
- Contrast Western and Eastern approaches to wellness.

### **ZOOL 200 Marine Biology (3)**

Biological, physical, and chemical characteristics, flora and fauna, and interactions of components of marine ecosystems; survey of marine environments; utilization, exploitation, pollution, and conservation of marine resources; with special emphasis on the Hawaiian marine environment. (3 hours lecture)

*Recommended Preparation: Registration in ZOOL 200L.*

DB

## Course Descriptions

The student learning outcomes are:

- Explain the process and philosophical basis of scientific inquiry.
- Distinguish between living things and inanimate objects.
- Demonstrate an understanding of the physical and chemical characteristics of the marine environment, especially those of the Hawaiian marine environment, and how they impact marine life.
- Communicate knowledge of the diversity of marine organisms, especially Hawaiian species.
- Exhibit an appreciation of the interaction between structure and function of marine life and how marine organisms are taxonomically related.
- Illustrate and provide examples of the ecological role of and relationships between marine organisms.
- Describe the major life zones of the ocean and the adaptations of living things relevant to being a successful species in these zones.
- Recognize and suggest solutions to the negative impacts of human activities on the marine environment.
- Research and write, using the language of the field, about a marine biology topic.

### **ZOOL 200L Marine Biology Laboratory (1)**

Companion laboratory to ZOOL 200, Marine Biology. Practical, hands-on experiences in marine biology. Laboratory/field trip class. (3 hours laboratory)

*Prerequisite: Credit for or registration in ZOOL 200 or consent of instructor.*

DY

The student learning outcomes are:

- Use the scientific method of inquiry to investigate biological phenomena.
- Apply the concepts learned in ZOOL 200 to an experimental and hands-on observational setting.
- Collect, reduce, and interpret biological data.
- Prepare written objective reports describing and interpreting experimental and observational results.
- Demonstrate the use of some of the standard tools of the biological scientist, such as microscopes, scales, spectrophotometers, computers, and other analytical tools.
- Demonstrate the use of specialized tools and methods frequently used in the study of the marine environments and the organisms that live in these environments.

### **ZOOL 254 Exercise Therapy (3)**

This course introduces selected concepts, principles and practices of physical activity that affect human wellness and fitness throughout all stages of life. In particular, the concepts of exercise specificity, adaptation, and remediation are presented as they affect human growth and development, and the aging process. The clinical concept of hypokinetic disease (under activity) is presented and its counterpart, clinical exercise therapy (Rx dosage) for purposes of preventative health application and remediation. Comparative study of both Western and Eastern exercise regimens are included in the context of their clinical contribution to wellness. (3 hours lecture)

*Recommended Preparation: BIOL 100 or ZOOL 101 or ZOOL 141 and ZOOL 142.*

DB

The student learning outcomes are:

- Define basic terms, concepts and principles of exercise, fitness, and wellness.
- Describe the fundamental classification of exercise biology and its underlying processes.
- Discuss the relationships between exercise and health.
- Explain the specificity of exercise and its multiple modes of application and related responses.
- Describe guidelines for assessing and planning a fitness-wellness program.
- Comprehend the professional literature and correctly interpret and categorize new developments/approaches in the field.
- Apply scientific logic to the selection and application of the many commercial products and procedures inundating the field.
- Contrast Western and Eastern approaches to wellness.

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For a current listing, go to the WCC website at <https://windward.hawaii.edu/Directory/#C>



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MFA, UC Irvine;  
BA, Rice University

### Russell Uyehara

Math Resource Specialist, Title III  
BA, University of Hawai'i West O'ahu;  
AA, Windward Community College

### Jane Uyetake

Associate Professor, CC  
CCE Program Coordinator  
BS, University of Hawai'i;  
AS, Leeward Community College

### Colleen Watanabe

Office Assistant, Office for Academic Affairs  
AS, Kapi'olani Community College

### Faye Watanabe

Library Assistant, Library  
BA, University of Hawai'i

### Jenny Webster

Instructor, CC, English  
MA, California State University, Long Beach;  
BA, California State University, Long Beach

### Ingelia White

Professor, CC, Botany and Microbiology;  
Director, Kūhi Lā'au  
PhD, University of Hawai'i;  
MA, University of Hawai'i;  
MS, Bogor Agricultural University;  
BS, Bogor Agricultural University

### Charles Whitten

Professor, CC, Counselor  
M.Div., Southwestern Seminary;  
MA, Baylor University;  
BA, Baylor University

### Catherine DeEtta Wilson

Professor Emeritus,  
Community Colleges

### Vijjayano (VJ) Wowor

Information Technology Specialist  
BA, Hawai'i Pacific University;  
APC, Honolulu Community College

### Ivan Wu

Information Technology Specialist, Office of  
Planning, Research and Assessment  
BS, University of Hawai'i

### Carolynn Yamada

CCE Marketing Specialist;  
MA, Golden State Baptist Seminary;  
BFA, University of Hawai'i

### Wendy Yamamoto

Secretary to the Director for Career  
& Community Education

### Carl Yokogawa

Groundskeeper

### Joseph Yoshida

Early Alert MySuccess Coordinator,  
Counselor  
MSW, University of Nevada, Las Vegas  
BGS, University of Louisiana

### Dhalia (Dal) Young

CCE Cashier Clerk

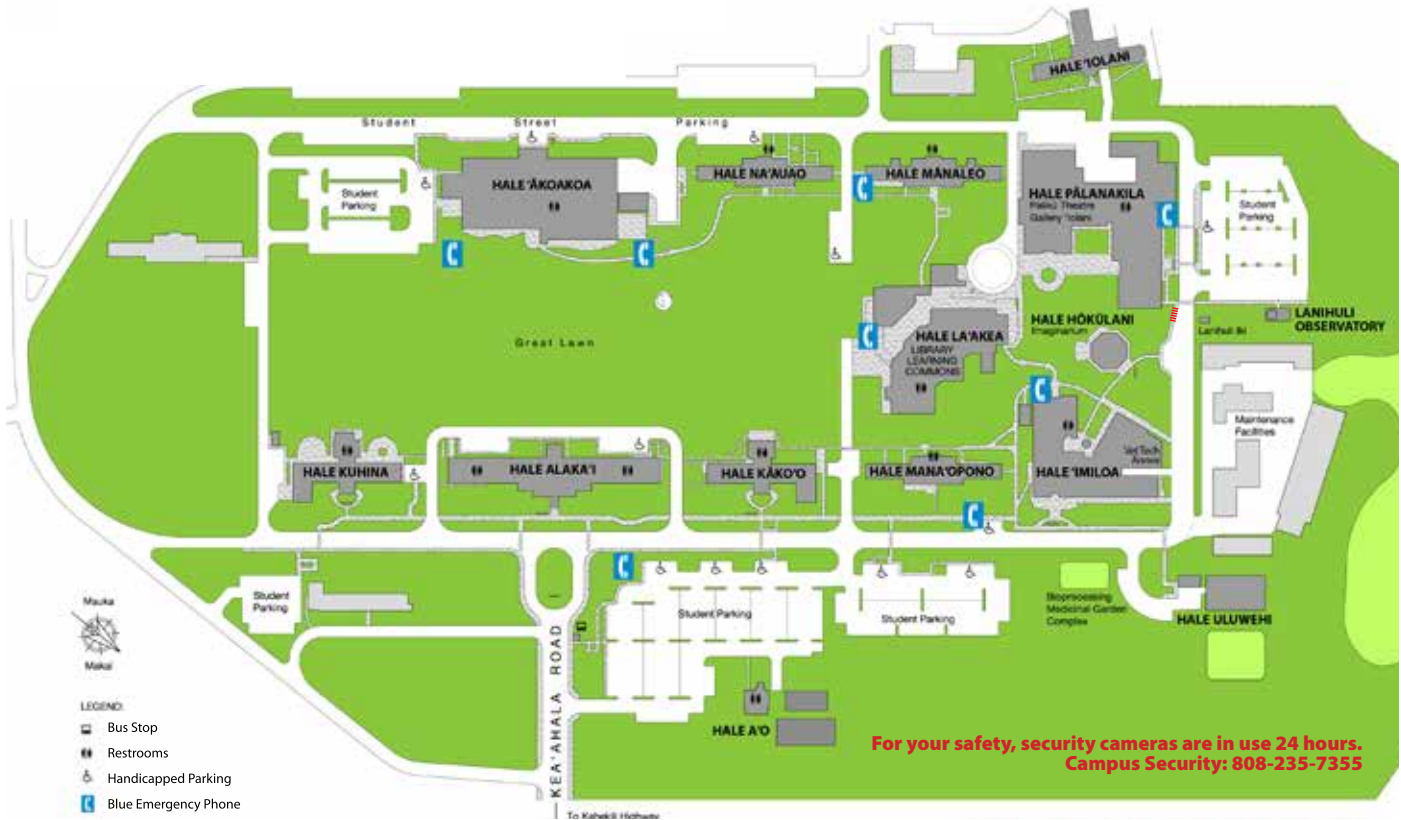
### Elizabeth Young

Professor Emeritus,  
Community Colleges

### Kathleen Zane

Assistant Professor, CC, Counselor  
MSW, Smith College School of Social Work;  
PhD, City University of New York Graduate  
Center;  
MA, New York University;  
BA, Barnard College, Columbia University

# Campus Map



## **Hale Kuhina (Career & Community Education)**

Administrative Offices  
Health Career Programs

## **Hale 'Ākoakoa (Campus Center)**

Vice Chancellor for Student Affairs  
Academic Advising and Counseling  
Bookstore  
Cafeteria  
Career and Transfer Center  
Clubs and Organizations  
Language Arts Classrooms  
Language Arts Faculty Offices  
Outreach & Recruitment  
Student Activity Center  
Student Government  
Student Publications

## **Hale Alaka'i (Administration)**

Chancellor  
Vice Chancellor for Academic Affairs  
Vice Chancellor for Administrative Services  
Admissions & Records  
Business Office/Cashier  
Classrooms  
Financial Aid  
Human Resources  
Learning to Grow  
Institutional Research  
Security

## **Hale Na'auao**

Social Science Classrooms  
Social Science Faculty Offices  
Study Abroad Office

## **Hale Kāko'o**

Veterinary Technology Faculty Offices  
Math Faculty Office  
TRIO SSS

## **Hale A'o**

Hawaiian Studies Classrooms  
Hawaiian Studies Faculty Offices

## **Hale La'akea (Library Learning Commons)**

Computing Services  
Ka Piko Student Success Services  
Library  
The Hub Coffee Shop  
Media Services  
Marketing & Communications  
The Testing Center (TTC)

## **Hale Mana'opono**

Faculty Offices  
Math Classrooms and Lab

## **Hale Mānaleo**

Computer Classrooms  
Language Arts Classrooms  
Language Arts Faculty Offices

## **Hale 'Iolani**

Art Classrooms  
Art Faculty Offices  
Hawaiian Studies Classroom

## **Hale Pālanakila**

Art Classrooms  
Business Classrooms  
Business Faculty Office  
Ceramics Studio  
Classrooms  
Computer Labs  
Humanities Classrooms  
Humanities Faculty Offices  
Gallery 'Iolani  
Information & Computer Science Faculty Offices  
Music Classrooms  
Palikū Theatre  
Photography Lab

## **Hale Hōkūlani (Imaginarium)**

Center for Multi-Media Education

## **Hale Lanihuli Observatory**

## **Hale 'Imiloa**

Aerospace Exploration Lab  
Hawai'i Space Grant Consortium – Windward  
Hōa'aina RS/GIS Center  
Kuhi La'au Plant Identification Center  
Marine Option Program (MOP) Office  
Natural Science Faculty Offices  
Natural Science Classrooms and Labs  
Veterinary Technology Facilities  
Water Quality Lab

## **Hale Uluwehi**

Agriculture Technology Facilities  
Shade House

# WCC Statistics

## Graduation and Persistence Rates

	Fall 2010 Cohort			Fall 2013 Cohort							
	Mānoa	Hilo	West O'ahu	UHCC Avg	Hawai'i	Honolulu	Kapi'olani	Kaua'i	Leeward	Maui	Windward
<b>GRADUATION RATE - 150% of normal time to completion .....</b>	<b>58%</b>	<b>35%</b>	<b>14%</b>	<b>18%</b>	<b>21%</b>	<b>16%</b>	<b>18%</b>	<b>18%</b>	<b>16%</b>	<b>19%</b>	<b>16%</b>
<b>Gender</b>											
Men .....	54%	32%	#	15%	21%	16%	13%	13%	14%	17%	12%
Women .....	61%	37%	20%	20%	21%	18%	21%	22%	17%	20%	18%
<b>IPEDS Race/Ethnicity</b>											
Nonresident Alien .....	62%	#	#	31%	#	#	32%	#	37%	#	#
Hispanic/Latino .....	41%	26%	#	12%	12%	21%	2%	23%	13%	7%	11%
American Indian or Alaska Native .....	#	#	#	#	#	#	#	#	#	#	#
Asian .....	71%	42%	10%	22%	37%	18%	18%	23%	21%	27%	24%
Black or African American .....	30%	#	#	9%	#	0%	#	#	10%	#	#
Native Hawaiian or Other Pacific Islander .....	61%	34%	#	13%	18%	10%	10%	0%	13%	21%	12%
White .....	42%	25%	#	16%	11%	31%	13%	16%	11%	17%	23%
Two or more races .....	58%	37%	#	15%	23%	14%	10%	17%	14%	16%	16%
Race and ethnicity unknown .....	#	#	#	33%	#	#	#	#	#	#	#
<b>Federal Grant/Loan Recipient</b>											
Recipient of a Federal Pell Grant .....	56%	29%	27%	16%	17%	16%	14%	17%	15%	18%	13%
Recipient of a subsidized Stafford Loan who did not receive a Pell Grant .....	51%	28%	#	17%	#	9%	13%	#	20%	18%	8%
Student who did not receive either a Pell Grant or a subsidized Stafford Loan .....	61%	42%	0%	20%	30%	18%	20%	21%	16%	20%	22%
<b>PERSISTENCE RATE - Still enrolled after 150% of normal time to completion ....</b>	<b>5%</b>	<b>4%</b>	<b>7%</b>	<b>16%</b>	<b>8%</b>	<b>16%</b>	<b>17%</b>	<b>17%</b>	<b>17%</b>	<b>19%</b>	<b>14%</b>
<b>TRANSFER OUT RATE .....</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>16%</b>	<b>6%</b>	<b>20%</b>	<b>19%</b>	<b>15%</b>	<b>17%</b>	<b>13%</b>	<b>19%</b>

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

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.

Institutional Research and Analysis Office, University of Hawai'i, February 2017

## WCC Crime Statistics (For current stats, visit [https://windward.hawaii.edu/security/Crime\\_Report.php](https://windward.hawaii.edu/security/Crime_Report.php))

OFFENCE	On Campus	Pub Prop	On Campus	Pub Prop	On Campus	Pub Prop
	2012	2012	2013	2013	2014	2014
<b>MURDER/NON-NEGLIGENT MANSLAUGHTER</b>	0	0	0	0	0	0
<b>NEGLIGENT MANSLAUGHTER</b>	0	0	0	0	0	0
<b>SEX OFFENSES, FORCIBLE</b>	0	0	0	0	0	0
<b>SEX OFFENSES NON-FORCIBLE</b>	0	0	0	0	0	0
<b>ROBBERY</b>	0	0	0	0	0	0
<b>AGGRAVATED ASSAULT</b>	0	0	0	0	0	0
<b>BURGLARY</b>	2	0	1	0	1	0
<b>MOTOR VEHICLE THEFT</b>	1	0	1	0	2	0
<b>ARSON</b>	0	0	0	0	0	0
<b>ARRESTS: WEAPONS: CARRYING, POSSESSING, ETC.</b>	0	0	0	0	0	0
<b>DISCIPLINARY REFERRALS: WEAPONS: CARRYING, POSSESSING, ETC.</b>	0	0	0	0	0	0
<b>ARRESTS; DRUG ABUSE VIOLATIONS</b>	0	0	0	0	0	0
<b>HATE CRIMES</b>	0	0	0	0	0	0

VAWA OFFENCES	2012	2013	2014
<b>DOMESTIC VIOLENCE</b>	1	1	2
<b>DATING VIOLENCE</b>	0	0	0
<b>SEXUAL ASSAULT</b>	0	0	0
<b>STALKING</b>	0	0	2



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# Definition of Terms Used by Windward Community College

## Cancelled Classes

Courses are subject to cancellation (e.g. low enrollment). There is a 100% tuition/fees refund for cancelled classes. Students are notified via mail, email, phone call, or posted on classroom door.

## Change In Registration

All changes in registration (adds, drops, withdrawals) must be officially recorded by the deadlines. If drops and withdrawals are not officially recorded, students are subject to receiving a failing grade. Changes can be made via MyUH portal, or by visiting the academic counselor, or the Admissions & Records Office. Once the semester begins, there is a fee for in-person add/drop transaction charged to students. Additional tuition and fees may be applicable when adding a class. Once the semester begins, complete withdrawal from ALL courses must be made in person at the students' home campus.

## Change of Home Institution

Students that want to change institution after submitting an admissions application or enrolled at a CC campus must complete a Change of Home Institution form instead of a UH System-wide application (excluding 4-year UH campuses).

## Class Size

Classes at the college normally range in size from 15 to 35 students; WI classes are usually limited to no more than 20 students.

## Classified Students

Students who are enrolled for credit in an officially declared prescribed program leading to a degree or certificate (AA, AS, CA, CO).

## Commencement

A public ceremony and celebration held at the end of the academic year at which students' degrees and certificates are recognized.

## Course

A unit of instruction consisting of varying combinations of recitations, lectures, laboratory sessions, and field trips in a particular subject within the time span of a semester or session.

## Credit Hours (also referred to semester hours, credits, units)

The value assigned to each class of each course. One credit hour usually equals fifteen hours in class per semester. The number of credit hours for each course is determined by the number of lecture, laboratory, or field experience hours determined necessary for each semester course. No student may register for more than 18 credits without obtaining approval from a counselor at registration.

## Continuing Student

After admission, students must be enrolled each semester (Fall/Spring) for at least 1 credit hour of course work. Students who are not enrolled will need to submit the system application form for readmission with the established regulations. Students who are readmitted will be subject to the degree requirements in effect at the time of readmission.

## Distance Learning (DL)

Working collaboratively, the UH Community Colleges now provide courses that allow Hawai'i students to earn a degree through cable TV, Internet, and interactive television.

## Erase Period

During this time students dropping a course will have the class erased from their registration file. See current Academic Calendar or Schedule of Classes for deadlines.

## Full-time Student

A student carrying twelve (12) or more credit hours in a semester or six (6) credits or more in a 6-week Summer session where full-time status is for only the 6-week session. A third party sponsor may have a different definition of full-time status used in determining their benefits (e.g. VA, financial aid).

## Part-time Student

A student carrying 11 or fewer credit hours in a semester.

## Prerequisite

Skills or courses required prior to enrollment in a course. Course descriptions indicate prerequisites if they apply.

## Returning Students

Students who have missed (stopped-out) a semester (Fall/Spring) must reapply for admissions if they wish to return to the college.

## Semester

A time span of fifteen weeks within a four and one-half month period during which courses are offered and completed. Some courses are also scheduled for 13-week. There are usually two semesters in one academic year: fall semester and spring semester. There may be several "accelerated terms" within each semester (e.g. 8-week, 5-week).

## Summer Session

The college usually offers two sessions during the summer. Tuition and fees for the summer session differ from those of the Fall/Spring. Students who are enrolled for the Spring semester may register for the summer session without applying for summer. New/Returning summer students are required to apply for the Fall semester if the students want to continue for the upcoming semester.

## Unclassified Students

Students who are not pursuing a degree or certificate but are taking courses for upgrading or enrichment.

# Quick Telephone Guide

## Absences

Contact Instructor ([windward.hawaii.edu/directory](http://windward.hawaii.edu/directory))

Admissions & Records ..... 235-7432

Aerospace Exploration Lab ..... 235-7321

## Art Gallery

Gallery 'Iolani ..... 236-9155

## Audio/Visual Services

Media Production Center ..... 235-7301

Bookstore ..... 235-7418

## Career Information

Career Center ..... 235-7327

Cashier ..... 235-7411

Ceramics Lab ..... 235-7323

Career & Community Education ..... 235-7362

## Counseling Services

Counseling/Academic Advising ..... 235-7413

## Director of Development

KC Collins, CFRE, UH Foundation ..... 956-3458

Disabilities Services ..... 235-7448

Emergency..... 911

Equal Opportunities Officer ..... 235-7404

FAX ..... 247-5362

Financial Aid ..... 235-7449

## International Students Information

Admissions & Records ..... 235-7432

## Fujio Matsuda Technology Training and

Education Center ..... 235-7433

## Hawai'i Space Grant Consortium—

Windward ..... 236-9111

## Health Service/Medical Insurance Inquiries

Student Affairs ..... 235-7466

Hökūlani Imaginarium ..... 236-9350

Human Resources ..... 235-7409

Library Services ..... 235-7436

## Literary Magazine (Student)

Pueo ..... 236-9236

## Lost and Found

Safety & Security Office ..... 235-7343

Math Lab ..... 236-9277

Marine Option Program (MOP) ..... 236-9118

Marketing Communications ..... 235-7374

## NASA Flight Training Aerospace Education

Laboratory ..... 236-9112

## Newspaper (Student)

Ka 'Ohana..... 235-7185

## Pacific Center for Environmental Studies (PaCES)

Dave Krupp ..... 236-9121

Floyd McCoy ..... 236-9115

Palikū Theatre Box Office ..... 235-7310

Photo Lab ..... 236-9141

## Placement Testing Information

The Testing Center..... 235-7498

## Non-Credit Courses

Career & Community Education ..... 235-7433

## Registration Information

Admissions & Records ..... 235-7432

## Residency Regulations

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Running Start/Early Admit Programs..... 235-7448

## Scholarships

Financial Aid Office ..... 235-7449

Safety & Security Office ..... 235-7343

Security ..... 235-7355

Student Employment ..... 235-7426

## Student Government

ASUH-WCC ..... 235-7390

## Study Skills for Students

Ka Piko Student Success Center ..... 235-7454

Switchboard ..... 235-7400

## Transfer Information

Academic Advising ..... 235-7413

## Tuition Refunds

Business Office ..... 235-7411

## Tutors/Tutoring

TRiO ..... 235-7487

## Veteran's Certification

Admissions & Records..... 235-7432

## Withdrawal, Classes, College

Admissions & Records ..... 235-7432



UNIVERSITY of HAWAII®

# WINDWARD

COMMUNITY COLLEGE

## **Windward Community College**

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